



GOVERNMENT SOCIAL SLRVE

The Young Smoker

by J. M. Bynner

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by J. M. Bynner

A study of smoking among schoolboys carried out for the Ministry of Health

LONDON
HER MAJESTY'S STATIONERY OFFICE
1969

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SUMMARY AND CONCLUSIONS

INTRODUCTION (Chapter 1)

- 1. The study of schoolboys' smoking is part of a programme of research carried out for the Ministry of Realth in order to aid the anti-smoking campaign. It was designed to find out how smoking begins and why it is that some children take it up and others do not, so that health education activities might be more soundly based in future. Questionnaires were compliated amonymously by 5, 601 hoys aged 11-15 from 90 schools about their smoking habits, attitudes, and other related characteristics. The survey look place in January and Formary of 1966 and Covermant Social Survey Interviewers.
- 2. The report of the survey is in two parts. Part I is a modified version of a preliminary account which was written in January 1968. It contains data on the incidence of smoking, in January 1969. It contains data on the incidence of smoking, and the state of the contract a pletter of the boy smoker in terms of the other characteristics which distinguish him from boys who do not amoke. In the second part of the report a model to smoking, and the implications of this model for anti-smoking strategy are explored.

SOME CHARACTERISTICS OF SCHOOLBOY SMOKERS (Part 1 Chapters 2, 3, 4)

3. Data presented in Chapter 2 show that most boys try smoking while they are still at secondary school but of the youngest ones (1st and 2nd year) very few reach the stage of smoking as much as 1 cigarette a week and of the oldest ones (4th year) only about one third do so. In each school year there were a substantial number of boys (about 30%) who were at an intermediate stage of smoking experience; these 'triers' who had all tried smoking more than once, either claimed that they had given it up, or if they did smoke, said they consumed less than 1 cigarette a week. Smoking experience was slightly less common in the grammar schools than it was in other types of school. The majority of smokers - defined for our purposes as boys smoking 1 or more cigarettes a week - said that they inhaled the tobacco smoke. Unlike adult smokers, they tended to smoke filter-tipped cigarettes rather than the untipped variety. Most boys, particularly in the older age groups, obtained their cigarettes from shops, but slot machines were another important source of cigarettes for the younger ones.

4. Despite the safet-smoking campaign, the incidence of smoking among schedologs appears to have remained fairly stable over the last few years. Those schools in the sample, (smally secondary moderns) is which beath descation campaigns amolting, and no one health education technique appeared to have been markedly more effective than the others. However, secondary modern and comprehensive schools in which the introduced of smoking has the other schools are the proposed of the proposed of the various health descation techniques employed in the schools at talk by the head was associated with one of the schools as talk by the head was associated with one of the schools are the proposed of the schools are the proposed of the schools as the by the head was associated with one of the schools are the proposed of the school and the school are the proposed of the school are the school are

5. Although the anti-smoking campaign may have not done much to reduce the incidence of smoking in this age group, data in Chapter 3 show that it has had a marked effect in increasing children's awareness of the health risk in smoking. Nearly all the boys had heard of lung cancer (95%); they had learnt about it from advertisements. T.V. programmes or other people, and a substantial proportion (64% of those at grammar schools) had read about it. Although the sportsmen who say that smoking is bad for you were treated with a certain amount of scepticism by smokers, a surprisingly large proportion (79%) believed that smoking cigarettes causes lung cancer and that if they continued to smoke they would get lung cancer themselves (68%). In addition most smokers (78%) believed that smoking can damage health in other 'minor' ways besides causing lung cancer; for example, 'it can make your breathing difficult' (68%), 'give you bad breath' (70%), and 'generally weaken you' (65%).

6. But the information gap is still not completely bridged. Smokers were always behind non-smokers in the extent of their acceptance of health education arguments: many more of them were able to cite other causes of lung cancer besides cigarettes, and the more heavily they smoked the less likely they were to be put off smoking by their belief that they would get lung cancer from it. Rationalisations for continued smoking also gathered strength as smoking experience increased: many smokers maintained that the causal connection between smoking and lung cancer has not been proved, that non-smokers get lung cancer, and that if they were going to get lung cancer smoking wouldn't make any difference. The heaviest smokers (20 or more cigarettes a week) also claimed that they enjoyed smoking too much to give it up and that they were incapable of stopping anyway. Although the majority of smokers thought that the campaign would be ineffective in putting boys off smoking, it did appear to have affected their attitudes to smoking in a number of ways. Two thirds said that if they had children they would not allow them to smoke and 45% said they wanted to give up smoking themselves. The main reasons they gave for wanting to give up were the danger of getting lung cancer and the other damage smoking

could do to health; parental disapproval of anothing and its copease were also prominent reasons. Other evidence suggested that the cost of cigarettes is a major distincentive to smoke for eshooltopy. Although by adult standards the smokers spent very little on smoking, on average, about a third of their pocket were 'usually broke at the end of the week, to

7. An investigation of the relation between the boys' social background and their smoking experience (Chapter 4) showed that a permissive home environment, a circle of friends who were mostly smokers, and poor achievement at school all accompany the tendency to smoke. Smoking experience was most common among boys who came from large families in which there were older brothers and sisters who smoked and whose parents did not punish the children for smoking; but the parents' own smoking behaviour had only a small association with that of their sons. The social class of the family as indicated by the father's occupation similarly bore little relation to the boys' smoking attempts. But smoking was slightly more common among boys who believed their families to be 'working class' than it was among those who believed them to be 'middle class'. Boys whose friends smoked tended generally to smoke themselves and non-smokers' friends tended to be non-smokers as well. But social pressures to smoke were also strong on those boys who said they had given up smoking; many of them (62%) claimed that other boys often encouraged them to smoke, and that 'if you don't smoke the other boys make fun of you'. Finally, smoking experience was associated with poor academic achievement. As the boys progressed through the school there was a tendency for those who were falling behind the others in their work to be the first to take up smoking,

8. The amoker's poor performance at school work may be partly due to the fact that his leisure interests lie outside the school and that they to some extent conflict with the school's aims. Smokers in each age-group were attracted much more than non-smokers to the social life of older teenagers in which there is the opportunity to meet girls; they liked going to coffeebars, dance halls and cinemas, and, most of all, taking girls out, They were also better off financially than non-smokers, and they liked to spend their money on clothes and 'pop-records'. Non-smokers, on the other hand, were more attracted to such home and school-oriented activities as reading and writing, or watching television and listening to the radio; and they preferred to spend their pocket money on books, sweets and bicycle spare parts. They were also more attracted than smokers to sports and games, even though more of the latter were in fact members of sports teams. The 'triers' appeared to be moving in some of their interests towards the position of smokers, but they were not yet leading the kind of social life outside the school which would bring them into contact with older teenagers. As

the smokers got older they were coming to participate much more in the lesize activities associated with this type of social life. For all smokers except the youngest ones, the most popular place for smoking was the chema, but in the fourth year over half were smoking with eat parties, dance halls, and of boys were smoked. There were indications that a small of of boys were smoked to the control of the state of the control of the control of the state of the control of the

THE MOTIVATION OF SCHOOLBOY'S SMOKING (Part II)

Recruitment to smoking (Chapter 5)

9. One of the most striking facts about schoolbovs' smoking is that the act of smoking as little as 1 cigarette a week marks a boy out from his contemporaries in terms of a large number of characteristics (attitudes, social background and interests), Similarly a boy who has made a few tentative attempts to smoke and has then stopped smoking is likely to be quite different in terms of these characteristics from one who has not smoked or has only ever smoked 1 cigarette. The distinguishing characteristics of smokers may be interpreted as representing influences to which they, and not non-smokers, have been subjected. But not all characteristics which are associated with smoking represent major influences drawing boys into the smoking fraternity. When a number of characteristics are strongly related to each other as well as to smoking experience, only one may be the main influence on smoking and the others exercise their influence on smoking indirectly through it. For example, boys who are members of large families tend to have older brothers and sisters smoking, and the presence of these older smokers may be a more important influence than membership of a large family, as such, in recruiting boys to smoking. In order to identify the smallest number of characteristics (as measured by variables) which could adequately 'explain' recruitment to smoking, we carried out a discriminant analysis. This statistical technique enabled us to test how well different groups of variables discriminated between smokers and non-smokers, and consequently which set could best explain smoking experience. By using discriminant analysis we were able to narrow the field from first 21, then 8 and finally to 4 variables that could be looked upon as the main influences on smoking. These were:

- (1) Number of friends who smoked.
- (2) Anticipation of adulthood (a measure of the extent of a boy's participation in such leisure activities as going out drinking with friends and going to coffee bars and dance halls).

- (3) Parents' permissiveness (a measure of the extent to which parents adopted permissive attitudes towards smoking in their own homes).
- (4) Whether put off smoking by the danger of lung cancer,
- 10. The extent to which these four variables can explain recruitment to smoking increases as boys get older, and is greater among those attending secondary modern and comprehensive schools than it is among those attending grammar schools. In the fourth year of the secondary modern school, for example, 88% of the hove were smokers in the group, most of whose friends smoked, who were anticipating adulthood in their leisure activities, whose parents tended to be permissive about smoking and who were not put off smoking by the danger of lung cancer, On the other hand in the group of boys who had none of these characteristics there were no smokers. The most important of the four variables in explaining smoking experience is the 'number of friends who smoke'; the others are all about equally important except that parents' permissiveness plays a slightly smaller role for boys in grammar schools than it does for those in secondary modern and comprehensive schools. Triers appear to be on the route to smoking - but the pressures on them to smoke are not strong enough to turn their sporadic attempts into a regular habit. In terms of the four variables they are slightly more like non-smokers than smokers.
- 11. The results of the analysis suggest a simple model of the recruitment process. The four variables may be seen as the main influences on boys' smoking attempts; all other variables may be considered to exercise their influence on smoking through them. Two of the major variables - 'number of friends who smoke' and 'anticipation of adulthood' - can be considered to represent the peer group context in which the type of boys who are attracted to the social life of older teenagers are most likely to take up smoking. The others - 'parents' permissiveness' and 'not put off smoking by the danger of lung cancer' - can be looked upon as representing the absence of the normal inhibiting influences on smoking. In other words the boys who are most likely to smoke and will have most difficulty in giving up smoking are those whose friends smoke, who are attracted to the social life of older teenage boys and girls, whose parents are indifferent towards their smoking, and who are not put off smoking by the danger of lung cancer. This model has obvious implications for anti-smoking strategy. It suggests how potential smokers may be identified in the schoolboy population, and it suggests 3 target areas for health educators - the teenage group and its values, parents' attitudes to smoking, and boys' attitudes to the health message of the anti-smoking campaign.

12. Further detailed analysis of the data was carried out to find out how anti-smoking measures might be employed in each of these areas in order to reduce recruitment to smoking. Peer group pressures would appear to represent the main problem for health educators. Smoking is an integral part of the social life of those teenagers whose leisure interests lie mainly outside the school, and it gains continual reinforcement not only because of the need for group conformity, but also because it imparts status to the smoker in the eyes of other boys. A boy who is attracted to this type of social life is under considerable pressure to smoke, as is shown by the following data. Of those boys who said that going to coffee bars was one of the three things they liked doing most, a high proportion (54%) were smokers but an even higher proportion had a majority of their friends smoking (71%). On the other hand of those who named 'reading, writing and drawing' as one of the three things they liked doing most only 5% were smokers, and only 24% had a majority of their friends smoking

13. In order to find out why smoking is valued so much by these groups of boys who are 'anticipating adulthood' in their leisure activities', we investigated the ways in which boys perceive the smokers and non-smokers among their contempories (i.e. their images of these other boys), and related these images to what they thought about themselves and the kind of people they would have liked to be. The boys were asked to rate the four 'images' ('the smoker', 'the non-smoker', 'the self', and 'the ideal self') against a number of scales such as, 'good at school work....bad at school work! A factor analysis of these ratings suggested that they could be represented by three factors. In other words the boys were perceiving the four images largely in terms of only three basic dimensions. The first of these dimen-sions was called 'Educational Success' because it appeared to represent conventional school values: it was identified with such attributes as 'good at school work', 'good at sport', 'neat and clean', 'plans and thinks ahead' and 'often successful'. The second dimension was called 'Toughness'. It was associated with such characteristics as 'tough', 'good fighter', and 'likes to be with a group'. The third dimension, was labelled 'Precocity' because it represented a type of maturity which is not desired by many boys in this age-group. The attributes with which it was most closely identified were, 'interested in girls', 'tries to attract girls', 'wants to grow up' and 'has many friends'.

14. From a comparison of the images smokers, triers and non-smokers held in terms of these dimensions the following conclusions were drawn. Most boys, including smokers, value the conventional school goals represented by Educational Success, but they feel that 'the smoker' unlike 'the non-smoker' is failing to achieve them. Touchease, on the other hand, is an attribute which most boys, including non-smokers, also value, but only the smoker is seen to have. The smoker's perceived Toughness becomes increasingly attractive to boys as they get older because although at this get may be and to be tough, and this that imagine themselves to be. Precocity is another attribute which imagine themselves to be. Precocity is another attribute which most boys associates with the smoker'. But unlike Toughness, Precocity has very little attraction for most non-amokers even of the smokers of the second of the smokers of all ages value Precocity and think that they themselves are Precocious (though in their terms, no doubt, than mansal that they see themselves as being "nature" rether

15. These findings suggest that the main attraction of smoking to schoolboys is the Toughness that it represents. Smokers are able to achieve status in the eyes of other boys because smoking symbolises touchness; they therefore have a major incentive for continuing to smoke, and non-smokers similarly have a strong incentive for starting. Smokers are also united with their friends by the value they place on Precocity. This gives them an additional incentive to continue smoking because to give it up would mean identifying with non-smokers, a group who appear very immature to them, and who do not value success in attracting girls as they do. The one unattractive aspect of smoking for these boys is its association with lack of Educational Success, Schoolboy smokers, by and large, want to be successful at school and yet they feel they are failures. Although the main pressure to smoke is probably the need for the smoker to conform with his friends whose leisure interests are in some respects in conflict with school aims, and whose performance at school is consequently poor, many may smoke in order to compensate for their inability to do well at school. We found that boys who were at the bottom of their class tended to feel 'inferior' to other hove, and that feelings of inferiority were often associated with frustration and tension. The need to counter these feelings gives these boys a greater incentive than the others to impress their friends. Smoking as a symbol of identification with achievements in the teenage world outside the school provides an obvious means by which they can achieve status in the classroom

16. Itealin educators might take the above conclusions into account in framing and i-moding uppeals. Will se monking remains a meass of appearing tough and mature, there will be difficulty and a mature, and the second of the second of appearing tough and mature, there will be difficulty apparently and the particularly, in perpending smokers to give it up. it would clearly be valuable if ways could be found of persuading boys that mothing in itself is not a meass of really acquiring the attributes which they girlse, and that any boy who thinks it can be used in which in the particular the second of the second

association with failure. The value most boys, including smokers, place on conventional school goals, suggests that they gain no satisfaction from identifying themselves with the boys who do worst at school. It also suggests that they are likely to be receptive to the values health deductors try boy at arcses—including those embraced by anti-smoking campaigns held under school assubces.

The role of parents (Chapter 7)

17. The role of 'parcetais' permissiveness' is the development of the amolting habit was investigated further by examining the characteristics of homes in which a permissive atmosphere as surrounded smaling. Our measure of parcetai permissive particular control of the partic

18. There appear to be a number of conditions in a home which provide the setting for permissiveness towards smoking, and some of these have little direct relation to parents' attitudes towards it. Thus although parents' own smoking habits seem to be unrelated to their attitudes towards their children's smoking, by bringing cigarettes into the home they increase the availability of cigarettes which itself is one of the preconditions for a permissive atmosphere. Another chain of events leading to permissiveness can start from the social class of the boy's family even though this characteristic also has no direct relation to parents! attitudes towards smoking. Working class families tend to be larger than middle class ones, which increases the likelihood of their containing older brothers and sisters who smoke. Older brothers and sisters can contribute to the permissiveness of the atmosphere surrounding smoking, both directly by giving their younger brothers cigarettes, or indirectly by leaving them lying around. They also set an example to the younger children which in relation to smoking is probably a more important influence than the example set by parents.

19. As children get older permissivueses towards smoking increases. Alfordum most parents express the boye that their increases are proposed to the proposed p

20. These findings emphasise the value of enlisting parents' support for the anti-smoking campaign. It would be of great help to health educators if parents would dispel an atmosphere of easy-going tolerance towards smoking in their own homes, Most obviously if they smoke themselves, they might make sure that their children do not have easy access to cigarettes and they could persuade all other members of the family to do the same. Parents' permissiveness is a slightly less important influence on smoking among grammar school boys than it is among those at secondary modern and comprehensive schools, and in the latter, more of the preconditions for permissiveness are present e.g. large families containing older brothers and sisters who are smokers. Boys at these schools are under particularly strong pressure to see smoking as the norm for adult men. It would clearly be particularly valuable if parents of children in these schools could be told how they might help to discourage their children from taking up smoking. Parent-teacher association meetings would appear to provide a good opportunity for this. But more direct methods of communication (e.g. letters and pamphlets) might be tried as well.

Health education (Chapter 8)

- 21. The final target for the anti-smoking campaign boys' attitudes to the health risk in smoking - is one which has attracted most attention in the past. The campaign has had a good measure of success in making boys believe that if they smoke they will get lung cancer. But the crucial attitude change from not being deterred by this danger to being put off by it, has not generally accompanied the increase in knowledge. Of smokers, for example, 25% believed that they might get lung cancer through smoking and were put off smoking by this belief, but 42% believed, and yet were not put off. Non-smokers were generally much more responsive to the campaign: 72% believed in the lung cancer risk and said they were put off smoking by it, but in spite of this as many as 13% said that they were not put off smoking even though they did believe that they would get lung cancer if they smoked. 22. In order to find out how health education might be made
- more effective in putting boys off smoking we examined the relation between boys' attitudes to anumber of topics connected with smoking, and their responsiveness to the lung cancer argument (i.e. the extent to which they were deterred from much being controlled to the control of the control

up, is upset to see how helpless adults are when they try to give up smoking, is worried that so many adults cannot give up smoking, and cannot understand why adults smoke so much), Disapproval of smoking (thinks smoking is a dirty habit, is bad for you, and that boys who are caught smoking should be punished. favours taking away cigarette slot machines). 'Belief that smobing is not dangerous to children' (believes smoking is only dangerous to older people, and that it is only dangerous if you have smoked for a long time and smoke a lot), 'Opposition to dissuaders' (believes that adults who smoke should not try to stop children smoking, thinks it is all right for young people to smoke as they don't get cancer, thinks people who try to prevent you from smoking are bossy and nosy, and that punishing children for smoking is useless), and 'Belief that smoking relieves tension' (thinks smoking makes you feel on top of the world, more at ease in a group and that it can help people when they feel nervous or embarrassed). It was found that all these indices were related to responsiveness to the lung cancer argument, but that within each of the three groups of boys, smokers, triers and non-smokers, there was a considerable range of opinion in relation to them. In fact there were some groups of non-smokers who were closer in their attitudes to some groups of triers than they were to nonsmokers, and similarly there were groups of triers who were closer to smokers in their attitudes than they were to other triers. This suggests that many non-smokers and triers are well on the route to smoking even though - perhaps because of lack of pressure from friends or restrictions in their homes - they still have not yet reached it. But the reverse is also true: many smokers whose attitudes correspond to those of triers may only be smoking because of pressure from friends or a permissive home atmosphere. In the former case health education may be able to perform a valuable function in changing non-smokers' and triers' attitudes to smoking before the social pressures start to draw them into the smoking fraternity; in the latter case it can help reinforce the smokers' negative attitudes to smoking with the possibility that they can be persuaded to give it up in spite of the pressures that are on them to continue.

23. The attitude index which was most strongly related to the boys' responsiveness to the lung cancer argument was Disapproval of amobing.' This means that whether a boy is prot of amobing.' This means that whether a boy is prot of amobing by the daager of lung cancer depends more on the contract of the contract than on any other attitudes are showing as a good or a 'but' habit than on any other attitudes not other attitudes which have been mentioned provide, in effect, the foundations of this mats of the mathematical employing. Boys who were defence against the anti-moting employing. Boys who were treated were thing to be a support of the contract of the con

from their belief that smoking is not dangerous to children; those children who believed that the shealth risk is monking only has relevance for adult smokers tended to be generally opposed to the control of the cont

24. To convince boys that smoking is sufficiently dangerous to be avoided it would appear to be necessary to continue supplying them with information which will meet some of the rationalisations they put forward for not being put off. (There is a particularly good case for doing this in the grammar schools where at present there is less health education than in other types of school). But our data also suggest other ways in which boy's receptiveness to the campaign might be increased. The prominence of disapproval of smoking as a correlate of whether a boy is put off smoking by the danger of lung cancer underlines the need to bring about changes in boys' general attitudes to smoking as well as to provide them with more information about the health risk involved. There are dangers, however, in attempting to do this directly by suggesting, for example, that smoking is a dirty and unpleasant habit with few positive attractions. Smokers, particularly, may reject this suggestion because it conflicts with the reality of smoking as they see it; and there is a danger that this rejection may lead to a general 'boomerang' effect in which other parts of the appeal which they might find more easy to accept are also rejected. A more profitable approach would probably be to reinforce the other attitudes which lend support to disapproval of smoking, and to try to weaken those which oppose it. Thus it would seem appropriate to place emphasis in anti-smoking appeals on the minor health effects in smoking (breathlessness etc.,) which smokers can easily recognise, and also to refute their belief that smoking holds no dangers for children. The widespread concern which children have for the damage smoking can do to adult smokers and the helplessness of adults in doing anything about it might also be utilised. It would be valuable if adults were made more widely aware of the worry their smoking causes children, as this might make them modify their own smoking behaviour particularly when children are in their presence. In tackling children's opposition to dissuaders the emphasis may need to be placed more on the method of presenting the health message rather than the message itself. Its effectiveness is likely to be increased, if it can be put over by attractive young adults and older teenagers. Finally it would also seem worthwhile to try to dispel children's beliefs that smoking is a good means of reducing tension. Without directly contradicting their opinions about the

usefulness of smoking, which might conflict too strongly with their observations of adult smokers, it might be possible to persuade them that the claims made for smoking are exaggerated.

25. All these approaches may help to strengthen children's negative attitudes to smoking, but in relation to smokers other approaches may also have a place. For those smokers who said they wanted to give up smoking two very prominent reasons for wanting to give it up were the cost of smoking and parental disapproval. These reasons were often given in conjunction with 'fear of lung cancer', but unlike this reason they were given just as often by those boys who smoked a lot as by those who barely smoked at all. In view of this it would seem useful to give prominence to the expense of smoking and to parental disapproval in anti-smoking appeals directed at smokers. One of the attitude indices mentioned previously may also have particular relevance for the heavier smokers. As boys come to smoke more heavily they become increasingly uncertain about the belief that smoking is not dangerous to children. They are therefore likely to become more recentive to the argument that by smoking, children face the same kind of risks as adults.

MAIN CONCLUSIONS

The main pressure on a boy to smoke comes from his need to conform with, and gain status in the eyes of, his group of friends. This influence is countered by his parents' disapproval of smoking and by the health risk is smoking. Anti-smoking strategy needs to be directed (1) at devaluing smoking as a means of achieving status in the peer group, (2) at its freightening home restraints, and (3) at increasing the effectiveness of health obsention. In such a continuous control of the c

- (1) Try to persuade boys that smoking in itself cannot make a boy tough and mature even if many pretend that it does. Remind them that a boy who smokes will be seen by other boys as a failure, whereas non-smokers are seen as successful.
- (2) Ealist the support of parents for the anti-smoking campaign—especially those whose children are at secondary modern and comprehensive schools. Make them aware of the importance of their own smoking behaviour and attitudes, in relation to their children's smoking, and encourage them to dispol an atmosphere of easy going tolerance towards smoking in their own homes particularly as the children get older.

- (3) Improve the effectiveness of health education:-
 - (a) by continuing to supply children (including those at grammar schools) with more medical information about the health risk in smoothing, emploasising explaintsing and an explaint of the continuity of the can cause, and refuting their belief that smoking is not damerous to children.
 - (b) by reinforcing children's concern about adult smoking, and making parents aware of this concern.
 - and making parents aware of this concern.

 (c) by recruiting attractive young adults to present the health message of the campaign.
 - (d) by suggesting that the benefits claimed for smoking are exaggerated.
 - (e) by reminding children of the cost of smoking and of the fact that most parents hope their children will not take up smoking.



1 INTRODUCTION

Background to the research

The study of smoking among schoolboys is one of a series of researches (Bynner 1967, McKennell and Thomas 1967) carried out for the Ministry of Health* to aid the anti-smoking campaign. One of the most notable features of the development of the smoking habit is that most smokers who start smoking really early (11 or 12) so through a long period of experimenting with cigarettes before taking it up seriously. McKennell and Thomas found from their study of adult and adolescent smoking habits that during adolescence there is a large body of individuals who are at an intermediate stage of smoking experience between not smoking and smoking. At age 16, for example, 43% of the boys and 36% of the girls in their sample were smoking occasionally, or with some regularity, but they were still not yet smoking as much as 1 cigarette a day. Nevertheless it was during this period that the foundations of the smoking habit were undoubtedly being laid: 4 out of 5 people who had smoked more than 1 cigarette subsequently became regular smokers.

Clearly one of the principal means of reducing smoking in

the next generation of adults is to dissuade those in their early teens who are experimenting with cigarettes from becoming regular smokers, and to discourage those who have never tried smoking from ever starting. But so far there is little evidence that either the national anti-smoking campaign or the numerous health education campaigns which have been conducted in schools have had a great deal of success in reducing smoking among school children. A number of studies (Cartwright, Thomson et al, 1960, Jefferys & Westaway, 1961, Horner 1962, Jefferys 1963, Watson 1966, Erikson, 1966, Jefferys et al, 1967, and Holland and Elliott, 1968) have shown that although health education increases children's awareness of the health risk in smoking it has little effect on their smoking behaviour. Health Educators may find that they have had a larger influence in the long term on smoking than these studies indicate; our evidence suggests that the health hazard in smoking is a major inhibiting influence on the development of the habit. But in approaching children they have tended to overlook the fact first, that most children smoke so little that the health risk in smoking may seem to have little immediate relevance for them, and secondly, that the motives behind children's smoking attempts are, by and large, quite different from those which lead adults to continue the habit. The purpose of the present investigation was to find out what these motives are. It was designed to find out what attractions smoking holds for children and what external

^{*} Now the department of Health and Social Security.

pressures are on them to take it up so that health education activities might be more soundly based in future.

Although earlier research in this field has produced a rather confusing picture of the motives behind early smoking (see U.S. Surgeon General's report, 1964, for a critical review) it helmed to guide the design of the study and to define the aims of the analysis. Horn's studies in the U.S.A. (Horn et al 1959. 1961) identified three main influences prompting children to take up smoking; family smoking practices and attitudes, peer group pressures, and the child's psychological needs. These findings have been supplemented by those of other writers, not all of whom, have supported each other's conclusions. Cartwright, Thomson et al (1960) found in Edinburgh that children's smoking habits were associated with those of their parents, and that the more heavily a child smoked the more likely his parents were to know about it. Erikson (1966) in this country and Mausner & Mischler (1967) in the U.S.A. similarly reported a strong association between parents' and childrens' smoking habits, but Lawler (1967) in Manchester did not find evidence of any association and Lemin (1986) in Aberdeen found that older siblings' smoking habits had a stronger influence on a child's own smoking than did those of his parents. The strong influence of a child's friends on his tendency to smoke has been reported by Lemin (1966) and Mausner & Mischler (1966); smokers tend to go around with groups of other smokers, and similarly, non-smokers keep the company of other non-smokers. That some of the smoking groups may be rebelling against adult society is suggested by the fact that delinquent boys smoke much more than other boys (Dimond, 1964, Palmer, 1965), Several writers have found an association between poor attainment at school and smoking, but not all are agreed on whether this is brought about by a lack of ability on the part of the smokers. A study group of the London School of Hygiene & Tropical Medicine (1959) found that above age 12 smoking was more common in boys at secondary modern schools than it was at grammar schools, but concluded that the school environment plays a larger part than intelligence in influencing smoking. Salber and McMahon (1962) in the U.S.A. also doubted the influence of ability: they concluded that smokers do hadly at school work because they are not interested in it and not because they are less intelligent. On the other hand Dimond (1964) found in his sample of approved school boys a strong negative correlation between amount smoked and I.Q., and Mausner & Mischler (1967) supported Horn's earlier idea that smoking may compensate a boy for his inability to do as well as his friends at school work by giving him status in the classroom. They identified a group of smokers in the top grade of the American Junior High School whose smoking appeared to be largely a reaction to the stress of keeping up in the academic race.

Because smoking is a punishable offence for most schoolchildren one of the main problems in studying it is how to persuade them to be truthful about their own smoking experience. After a consideration of the methods of data collection used in earlier studies and the conclusions drawn about them by their authors (e.g. see Horner 1992), it was decided:

- to carry out the work on school premises rather than in the children's homes.
- (2) to obtain the information from questionnaires which the children completed anonymously rather than by interviewing them, and
- (3) to have the children complete the work under the supervision of Government Social Survey trained Interviewers rather than their teachers.

The questionnaires used in the main investigation were designed on the basis of a series of emploratory and pilot studies (see Acknowledgements). In the first of these, discussions were held with groups of boys and girls is demokers and non-amolera separately) from secondary modern exhols to find support the secondary modern exhols to find when the secondary of the non-smokers and sunders a mong their peers. This study suggested a number of hypotheses about the influences prompting children to start smoking, and drawing upon the content of the children's remarks a large number of questions were designed to test and explore them turber. After questions were designed to test and explore them turber. After a pilot survey in May 1956 of 1160 boys and girls in the first and foorth years of 25 oscendary schools.

One major finding of the pilot survey was that smoking among prist of this as group was much less common that it was among boys, and that girls who did smoke appeared to try smoking, either because they were encouraged to do so by byon, or for the same reasons as boys. To carry out a detailed investigation of the same reasons as boys. To carry out a detailed investigation or an older age group would have to be used; and there was a strong possibility that the findings obtained for girls would not differ substantially from those obtained for boys. These considerations made us decide to exclude girls from the main survey so that we could concentrate our effort on boys in

Besides examining differences between boys and girls in various to smoking, a detailed analysis of the pilot survey data was also carried out to find out which questions distinguished smokers from non-smokers, and to find out how the questions were related to each other. Using this information, it was possible to design a new set of questionnaires containing a smaller number of questions, but without losing any of the

essential components of the earlier set. After further minor modifications on the basis of a pre-test the questionnaires were ready for use. The final version is shown in Appendix 3.

The pilot work led to improvements in the procedure for organising the work in the schools and in the instructions for completing the questionnaires. In the main investigation which took place in January and February of 1966, a preliminary meeting was held with each head to discuss arrangements for carrying out the work and to obtain information about the classes selected for the study and the school's anti-smoking policy (the documents used are shown in Appendix 2). Each class worked under the supervision of a team of three or four interviewers one of whom took over all responsibility. She introduced the survey to the boys (see Appendix 2 for details) and explained to them how to complete the questionnaires, using wall charts with specimen questions on them to assist her. Her assistants helped the boys when they had difficulty in understanding the questions, and checked their completed work for omissions and inconsistencies. The boys were instructed not to write their names on the questionnaires and in order to emphasise the confidential nature of their replies they were shown one of the large envelopes, in which the completed questionnaires would be sealed and posted to our head quarters after they were completed. The work session was divided into two parts. In the first part the boys answered questions about their leisure interests, general attitudes to school, home, and friends, and personal characteristics, and also a few questions to establish their smoking experience. (Books I & II Appendix 3). In the second half, depending on whether they smoked, had given up smoking or had never smoked, they completed one of three questionnaires (Books III, III, Appendix 3) containing questions about their smoking history, contact with other smokers, attitudes to and knowledge of the health risk in smoking, and general attitudes towards smoking and towards other boys who smoked,

The sample

The sample was designed in such a way that detailed usalysis could be carried out in different age-groups within different types of school (tuil details are given in Appendix 1). Six types of secondary acholy were included: mixed secondary, because the secondary and the secondary a

^{*} Including bi-lateral and multi-lateral

the classes in each of the first four school years and the boys in each pair were brought together to form one class for the purposes of the study. Within each boys only school all the boys in one class, selected at random from all the classes in each of the first four school years, were included in the sample. The total sample obtained by this procedure was 5,601.

In terms of the total population of schoolboys those at secondary modern schools were under-represented and those at comprehensive schools were over-represented. In most of the analysis which this report describes, the sample was weighted so that the distribution of boys between different types of schools, was much the same as it was in the total population. This changed its apparent size to 6, 104. In Appendix 1, table A1, 7 gives a breakdown of the unweighted sample by school type and school year; table A1, 4 shows the weights which were applied to each of the six types of school; and table A1.9 shows a breakdown of the weighted sample by school type and school year. The distribution of boys between secondary modern schools. grammar schools and comprehensive schools in the weighted sample bore a close resemblance to the distribution in the total population of school boys as is shown by the following figures. In our weighted sample 64% of the boys were at secondary modern schools, 24% were at grammar schools and 11% were at comprehensives. For the total population of schoolboys the corresponding percentages were 65% (secondary modern), 22% (grammar) and 12% (comprehensive)*.

Because the sample was restricted to three types of school it cannot be considered completely representative of the total population of schoolboys. Nevertheless 83% of secondary schoolboys aged 11-15 do attend these schools and as the following figures show in respect of two demographic characteristics,

Region	Population aged 5-14 1961**	G. S. S. Weighted Sample 1966
Northern	8%	9%
Yorks & E. & W. Riding	9%	11%
North Midland	7%	7%
Eastern	9%	2%
Metropolitan	22%	25%
Southern	6%	6%
South Western	7%	6%
Wales	6%	7%
Midland	11%	10%
North Western	15%	16%
TOTAL	100%	100%
Base	3,577,923	6,104

^{*} Statistics of Education 1966, Part I, Table 5.

Size of Population in Local Authority Area,	Population aged 5-14 1961	G. S. S. Weighte Sample 1966
London Conurbations Urban - over 100,000 Urban - under 100,000 Urban under 50,000 Rural	22% 13% 14% 10% 21% 21%	22% 11% 21% 12% 26% 8%
TOTAL	100%	100%

Base 3,577,923 6,104
education region and size of population in the school's local
authority area, the weighted sample was similar to the total
population.*

The only difference these figures show is a slight has in our sample towards boy attending schools in whan areas, which may be a supply to the tendency for boys who live in rural areas to attend action of the tendency for boys who live in rural areas to attend some or weighted sample to the total roundation to actionablesy. The loss to the sample of such small sections of the schoolsy. The loss to the sample of such small sections of the order of the sample of such small sections of the control of the sample of such small sections of the order of the sample of such small sections of the order of the sample of such small sections of the order of the sample of such small sections of the sample of such small sections of the sample of the

Structure of the report

This report is in two parts. The first part is a modified version of a preliminary account of the survey which was written in January 1968. It contains data on the incidence of smoking, and the effectiveness of health education in reducing smoking in the schools covered by the survey (Chapter 2); it also describes the reactions of schoolboys to the anti-smoking campaign, their knowledge of the health risk in smoking, and the effect this knowledge has had on some of their own attitudes to smoking (Chapter 3); finally it covers data on the social background of smokers, and some of the interests and other characteristics which distinguish them from other boys (Chapter 4). In the second part of the report, on the basis of the results of a discriminant analysis, a model is put forward to suggest which of the large numbers of variables included in the study can best explain the process by which boys are recruited to smoking, (Chapter 5). In the final three chapters ways in which the recruitment progress might be reversed are considered, and conclusions are drawn about future anti-smoking strategy.

Census (1961). (Age, Marital Condition and General Tables), table 15, H.M.S.Q.

Acknowledgements

We are grateful to Dr. A.C. McKennell who carried the main responsibility for this research. He guided the study through its various stages, but should not be held responsible for the interpretations of the data which occur in this report. Our thanks are also due to Mr. J. Downing of the Institute of Education who carried out the group discussion study which provided the basic hypotheses for the research, and to Dr. A.N. Oppenheim of the London School of Economics and Political Science who designed the questionnaires which were used in the pilot investigation. In all survey research a great deal depends upon the people in our specialist sections who have the difficult task of putting our ideas into practice. Mr. R.M. Blunden designed the various samples used in the study. Miss Jean Atkinson and Miss Mary Noonan organised the fieldwork and Miss Helen Lewin, Mr. D.W. Walker and Miss Elizabeth Fell carried out the computing for the analysis. Without the co-operation of the local education authorities in the areas where the sampled schools were situated, of the heads and staff of these schools who altered their timetables for our benefit, and, of course, of the boys themselves who answered our questions nationtly and, we think, honestly, the research could not have been carried out. The quality of our data is very much dependent upon the work of all those people who participated, and we are most grateful to all of them.



PART 1

Some Characteristics of Schoolboy Smokers

2. THE INCIDENCE OF SMOKING

2.1 The extent of smoking experience

The boys were asked whether they had ever smoked a citarette and at what age they had smoked it. From their answers it was possible to calculate an 'accumulative incidence' curve (Figure 2.1), which shows the proportion of body who had smoked had smoked as citarette by the age of 15 and 45% had done so by the time they were 11.



The curve shows that the experience of smoking a cigarette is common to most schoolboys. But one smoking experience in itself does not mean that a by is about to become a regular period of experimentation with cigarettee before they start to smoke regularly. Table 2.1 shows how far this experimentation had proceeded smoking they be an each of the four school years are the smoke regularly. Table 2.1 shows how far this experimentation that proceeded smoking experimentation and proceeded smoking experimentation. The smoking experimentation is the smoking experimentation of the start types of deshoot.

The technique for calculating accumulative incidence is given in Kinsey et al. (1948).

Table 2.1 Experience of smoking analysed by school year

		School Year						
Experience of smoking (Q.14, 15 & 16, Book I)	1st (aged 11-12)	2nd (aged 12-13)	3rd (aged 13-14)	4th (aged 14-15)	Total (aged 11-15)			
Never smoked Tried one cigarette	58 21 79	% 42 16]58	% 28 15] 43	% 20 10]30	% 38 15 53	Non Smokers		
Tried more than one cigarette but does not smoke now Smokes less than 1 cigarette a week	13 17	25 5]30	29 9 38	30]36	24 8]30	Triers		
1 - 4 cigs. a week 5 - 9 cigs. a week 10 - 14 cigs. a week 15 - 19 cigs. a week 20 - 24 cigs. a week 25 - 29 cigs. a week 30 - 39 cigs. a week 40 or more cigs. a week	3 1 0 0 4 0 4	5) 3 2 0 1 12 0 0 0	5 3 4 3 1 1 1	7 6 5 2 3 4	5 3 3 1 1 2 17	Smokers		
Total	100	100	100	100	100			
Weighted bases:	1577	1516	1550	1461	8104			

Table 2.2 Experience of smoking analyzed by type of school attended

	School Type						
	Secondary Grammar Modern		Compre				
Experience of smoking	Boys only	Mixed	Boys only	Mixed	Boys only	Mixed	
Never smoked Tried 1 cigarette	% 38 15] 53	% 36 13]49	% 38 20] 58	% 40 18]58	% 37] 18]	5 39 13 52	Non Smokers
Tried more than 1 cigarette but does not smoke now Smokes less than 1 cigarette a week	²⁸ ₅]31	24 6]30	22 7]29	²⁷ 5]32	²⁴ ₃] 27	²⁷ 5] 32	Triers
1 - 4 cigs. a week 5 - 9 cigs. a week 10 - 14 cigs. a week 15 - 19 cigs. a week 20 - 24 cigs. a week 25 - 29 cigs. a week 30 - 39 cigs. a week 40 or more cigs. a week	3 3 3 2 1 1 1	6 4 3 1 2 2 1 2 2	1 1 1 1 1 1 1	3 1 2 1 1 1 0 1	5 4 3 2 2 1 0 1	5 1 3 1 2 1 1 1 2	Smokers
Total	100	100	100	100	100	100	
No. in sample	928	843	1027	909	989	895	

It is clear from Table 2.1 that among the younger boys regular smoking was rare. Over half of the first, year boys had never smoked a cigarette, and of those who had done so, most said they had never smoked another one or had stopped smoking altogether. But among the older boys there was much more evidence of regular smoking. Although many were still at the stage of trying the occasional eigerette or claimed that they had given up smoking, substantial numbers were smoking one or more eigerettes a week. In the fourth year about a third one or more cigarettes weekly 16% were smoking as many as 20 or more cigarettes weekly 16% were smoking as many as 20 or more cigarettes.

There was little difference in the boys* smoking experience between the six different types of school (Table 2.2) except that boys who attended secondary modern schools or comprehensive schools tended to have had slightly more smoking. About 50% of the former had sever smoked or had only ever smoked one tigrate the incompration with about 50% of the International Control of the Control of the

2.2 The definition of smoking

The fact that may boys of this age (11-15) make only sporadic attemps at smooting points to the difficulty of clearly identifying the boy smoker. In order to arrive at a satisfactory definition of smoking a preliminary analysis was made of the boys' answers to a number of questions on family background and leisure interests. It was found that changes occurred in the contract of t

On this basis it was possible to divide the boys into three groups - Non-smokers, Triers and Smokers - who were defined as follows:

 ${\it Non-smokers}$ were those who had never smoked or had only ever smoked one cigarette.

Triers were those who had smoked more than one cigarette, but at the time of the survey were either smoking less than one cigarette a week, or claimed that they had given up smoking.

Smokers were those who were smoking one or more cigarettes each week.

The advantage of treating the triers as a separate group is that they may be the boys who provide the best target for the anti-smoking campaign. About one third of the boys were triers (Table 2.1), and although most of them claimed that they had given up smoking at the time of the survey it seems improbable, that many of them really were cx-smokers in the adult sense. What seems more likely is that their smoking attempts had just cassed temporarity. Their lack of commitment to smoking suggests an ambivalence towards it, which might be converted outlined to the converted to the converte

The above defiablious provides a classification of smodain, experience which is such throughout this report (in Apopun-4 a comparison is given of the namewor of non-smokers, triers and smokers to all the questions added in the survey). In some tables in the main text, however, the smokers' group is substable to the smokers of the smokers' group is substable to the smokers of the smokers' group is substable to the smokers of the smokers' group is substable to the smokers of comparison, used in the report are school year and type of school attended. But because of the similarity in smoking coperience between the part of the smokers of the smoker

2.3 Smoking habits

Most boys appeared to have mastered the technique of smoking a cigarette without mach difficulty. Although 40% of smokers said that they had felt sick or dizzy after smoking their first cigarette (Qid, Bock III, Appendix 4) only 4% said that they still had these reactions (Q: 2b, Bock III, Appendix 4), and 80% said they usually took the smoke right down into their lungs (Q2h, Bock III. Appendix 4).

In one important respect the boys! smothing habits differed from those of adults. Bighty seven per cent of the boys said they usually amoded filter-tipped cigarettes (Q2c, Book III, Abendits's) in comparison with only 3% of the adult men who Abendits's live comparison with only 3% of the adult men who Abendits's live comparison with only 3% of the adult of the Comparison of the Compariso

Table 2.1. shows how the smokers usually obtained their cigareties. Most of them seemed to experience little difficulty in buying them, but as they got older the source they used the same of the same an increase across the four school years in the proportion who usually bought them from shope (64% in the first year compared with 76% in the fourth year), whereas there was a decline in the proportion who bought them from

Table 2.3 Current source of cigarettes analysed by school year

Source of Cigarettes		School Year				
(Q.2d, Book III)	1st	2nd	3rd	4th		
Buy them at a shop	64%	77%	75%	78%		
Get them from friends	12%	7%	10%	11%		
Get them from slot machines	14%	6%	5%	3%		
Get them from parents	0%	4%	1%	2%		
Get them from brothers and sisters	3%	1%	1%	0%		
Get them from some other way	75	5%	8%	6%		
Total	100%	100%	100%	100%		
Weighted bases	69	173	305	492		

slot machines (14% compared with 3%). In all four school years about one tenth of the boys usually obtained their cigarettes from friends.

2.4 The national incidence of smoking

As potited out in Chapter 1 although the sample did not cover all types of school there are good grounds for considering it erpersentative of the total population of secondary schoolboys aged 11-15. Accordingly, the sarvey should give resunosity extinates of the national incidence of smoking in this age-group estimates of the national incidence of smoking in this age-group. We obtained with those obtained to earlier studies in which a comparable definition of smoking (at least one cigarette a week) was employed.

It is notable that with the exception of the studies carried out by the Tobacco Research Council (1981, and 1985, 696) our own survey given incidence figures for smoking which were not markedly different from those obtained in other studies. Even though these latter studies were carried to store the council to common with over the data were collected in all of them by means of anonymous self-completion questionnaires. The Tobacco Research Council, on the other hand, obtained their data by means of personal interviews conducted in the children's homes. Although we can by on means be certain of this if does seem possible that the anonymous self-completion method does seem possible that the anonymous self-completion method does commarability between our figures and those obtained by others.

Table 2.4 Incidence of smoking in different age-groups compared for different studies

	Date			Т	Ape		
Author of Study*	of Field Work	Sample	11	1:	Ť	_	1
Cartwright A. and Thomson J.G. (1960)	1959	1578 boys in 4 Edinburgh schools		9%	16	339	29
Tobacco Research Council (1962)	1961	2340 boys aged 10-15 (quota sample)	39	45	139	209	259
Jefferys M. (1963)	1962	567 14 year old boys in 12 Sec. Mod. schools near London	-			36%	-
Lemin B. (1966)	1965	482 14 year old boys in 46 junior Sec. mixed schools in Aberdeen	_			30%	
Rolland W.W. and Elliott A. (1968)	1965	14-15 year old 2409) boys in S. Mod				2	75
	1966	or grammar 2465) schools in S. E. England	-	-	-	21	9%
Tobacco Research Council (1966)	1965/6	1944 boys aged 10-15 (random sample)	5%	4%	5%	16%	22%
GOVERNMENT SOCIAL SURVEY	1966	\$601 boys in random sample of all boys in 3 main types of school	4%	9%	17%	27%	38%
Total population of sch	oolboys	in 1966 in thousands	375	373	181	308	247

See 'REFERENCES' for full details.

suggests that they are reasonably accurate.* One other point is worth noting about Table 2.4. There is no evidence over the seven years covered by the reported studies of any trend towards more smoking not less making in the 14-15 year old age-group. By and large the incidence of smoking seems to have remained stable in this population in spite of the extensive efforts of education and health authorities to reduce it.

Note: Incidence of smoking is defined as proportion of boys smoking at least 1 cigarette a week.

In so far as there is any biss in our figures it probably lies in the direction of a slight under estimate because of the incentive which exists for schoolboys to cover up a prohibited activity such as smoking.

2.5 The effect of health education on the incidence of smoking

It was noted in Chapter I that when ever health education campaigns on the subject of smoking have been carried out in schools, and the effects on the children's smoking have been evaluated. the campaigns have been shown to have had little influence. We took the opportunity to ask the headmaster of each of our schools whether any attempts had been made to discourage the pupils from smoking, and if health education had been given, what form it would have taken for the boys in each of the selected forms. and when they would have experienced it last. Over the four school years the proportion of boys who had received some kind of anti-smoking education were: 41% (first year). 54% (second year) 60% (third year) and 63% (fourth year). This trend suggests that most schools who attempt to dissuade their pupils from smoking do so when the children first enter the school, and after that anti-smoking appeals are made less often. Many different methods of presenting anti-smoking information - sometimes in combination - were employed by the schools. The most common was a talk (60%), followed by posters (49%), films (20%), leaflets (20%), and exhibitions (4%). Of those boys who had heard a talk, 39% had heard it from their headmaster, 16% from another teacher, 10% from the medical officer of health, and 6% from another health educator from outside the school.

Even though not all the schools had used health education techniques to combat smoking, nearly all of them had an antismoking policy. All the heads thought that children should be discouraged from smoking and punished those who were caught smoking on the school premises. Staff were also discouraged from smoking in front of the children in most of the schools, but this policy was slightly less common in secondary modern schools than it was in grammar schools and comprehensive schools: 78% of the boys at secondary modern schools were attending schools where this was the policy in comparison with over 90% of those at grammars and comprehensives. On the other hand, health education on smoking was more commonly given in the secondary modern schools than it was in the other types: 66% of the boys at secondary modern schools had experienced some form of it in comparison with 47% of those at grammar schools and 44% of those at comprehensives. There was little evidence that the schools that were doing

most to discourage their pupils from smoking were having much success either in the short term or the long term. Table 2.5 shows that the incidence of smoking was, if anything, slightly given than it was among the others. It is also clear from this table that health education given recently (less than 6 months any) was having on more effect than health education given some time ago (more than 6 months), and that no use technique or long than the others. All of them, is fact, with the exception of

Table 2.5 The effect of anti-smoking education on the incidence of smoking

Action se	thool has taken to combat smoking	Proportion of boys smoking
No Health Edu	estion	15% (3499)
Health Educat	ion - more than 8 months ago	18% (1609)
	less than 6 months ago	19% (1781)
Type of Healt Education	- Film Posters Leaflets Exhibition	25% (740) 18% (1963) 24% (628) 21% (176)
	Talk	20% (1838)
	By Headmaster	16% (1002)
	By teacher	26% (258)
	By Medical Officer of Health	25% (234)
	By Health educator	14% (233)

tables given by health educators or the headmaster, seemed to be encouraging smoking rather than reducing it, a rather supprising finding which may simply reflect the fact that schools were smoking it as problem do most to combat it. As we have justicen seen, secondary modern schools go in for anti-smoking education seen, secondary modern schools go in for anti-smoking education seen, secondary modern schools go in for anti-smoking education seen, secondary modern schools in the simply in place reaction on the part of school staff to the slightly higher incidence of smoking in the secondary modern school. In spite of this possibility there was no ordence form an examination of the effect of health education on the incidence of smoking within the three types of echool that smoking was being reduced in

Other aspects of achool policy towards smoking such as whether anti-smoking posters were currently being displayed and whether members of staff were discouraged from smoking in front of more of the control of the con

It would seem unwise to conclude from these figures that a headmaster who gives up smoking is likely immediately to reduce smoking among his pupils. The differences may be due in part to a degree of dishonesty among boys in schools where

Table 2.6 The relation between headmaster's smoking habits and the incidence of smoking in different types of school

Headmaster's smoking habits	Proportion of boys smoking in different types of school					
	Secondary Modern	Grammar	Comprehensive			
loes not smoke mokes pipe or cigars mokes cigarettes	17% (2910) 22% (501) 26% (453)	15% (578) 10% (485) 13% (418)	15% (425) 20% (75) 22% (148)			

Note: Figures in brackets are bases for percentages.

the headmasters are non-smokers. The fort of a possible 'come-back' if they don't that they smoke may encourage a few to pretend that they don't. Whether or not this is the explanation, the finding points to the influence a headmaster can have in creating the atmosphere which surrounds smoking in his own school. The headmaster who smokes openly in front of his public may give them confidence to continue their own smoking, and to be open about it, whereas the head who is strongly opposed to smoking may make the boys much more uncertain about their manner.

2.6 Conclusions

The data reported in this chapter may seem discouraging to health educators. It seems that most boys are going to try a cigarette while they are at secondary school, and by the time they reach the fourth year substantial numbers are smoking with some regularity. The incidence of smoking among schoolboys appears to have remained stable over the last few years in spite of extensive efforts to reduce it, and no one health education technique seems to have had much more influence on the children than the others. In spite of their apparent failure to influence smoking behaviour health education campaigns may still have served a useful purpose. Most of them have been primarily concerned with informing children that smoking is injurious to health and the increased knowledge which the children have gained may have beneficial long term effects on their smoking behaviour. It will be shown in a later chapter (Part II, Chapter 8) that belief in the health risk in smoking can play an important role in inhibiting the development of the smoking habit.

3 REACTIONS TO THE ANTI-SMOKING CAMPAIGN

It was concluded at the end of the last chapter that although health decustion campaigns in schools have not elooped children smoking, they may have had long term effects on their attitudes towards it. Much of this chapter will be concerned with how far the anti-smoking campaign has succeeded in getting the medical facts about smoking arcses to schoolboys, and to what octant they have been deterred from smoking by the campaign. First of all, however, the contraction of the contractio

3.1 Attitudes to anti-smoking advertisements

The boys were asked whether they had seen any advertisements which were designed to stop people smoking, and, more specifically, whether they had seen any of these in children's magazines and newspapers. Most of the boys (2%) recalled having seen some advertisements, but a substantial proportion (one fifth) had not seen any of them (Q.Alfa, Book III, Appendix 4), and one quarter had not seen those for children (Q.A15b, Book III, Appendix 4).

There were mixed feelings about the effectiveness of antismoking advertisements: about half the beys thought that they might stop children smoking, and about half thought that they might stop children smoking, and about half thought that they make the state of the state of the state of the state of the would not be effective were! children make up their own minds about smoking whatever the advertisements say; "thillren deat' smoke makes them smoke all the more" – all of which were given by two thirds or more (Q. Alfotti), Book III, Appendix 4).

As might be expected, smokers were less favourably inclined towards the campaign than non-smokers. In all types of school, fewer smokers than non-smokers thought that the anti-smoking advertisements would be effective and more smokers (48%) than non-smokers (13%) thought that 'too much fuss was being made about smoking! (Q. A12. Book III. Appendix 4). A further example of the more negative reactions of smokers to the campaign was shown by their opinions about the sportsmen and sportswomen who say 'smoking is bad for you'. Fifty per cent of smokers said they believed the sportsmen in comparison with 78% of triers and 88% of non-smokers. It was notable, however, that only one fifth of the smokers rejected the views of the sportsmen outright. A substantial proportion (28%) said that they were not sure whether they believed them or not. Barely any of the triers or non-smokers refused to commit themselves in this way (Q. A14. Book III. Appendix 4).

Pilot data suggested that the reasons many boys do not believe the sportsmen are because they think they smoke in private, or because they know of other sportsmen who do smoke. Of course, any sportsman who does smoke is bound to weaken the effectiveness of this method of presenting the anti-smoking message. But in spite of this, the fact that large numbers of boys did appear, either to believe the sportsmen, or to be in doubt about the truth the campaign, seggests that they can play a valuable part in the campaign.

3.2 The Lung cancer hazard and other health risks

Nearly all the boys in each of the four school years said that they had heard about Iung cancer (Q.A7a, Book III, Appendix 4). They had received their information about it from a number of different sources; two thirds said they had heard people talk about

Table 3.1 Source of information about lung cancer analysed by school year

	School Year					
Source of Information	1st	2nd	3rd	4th		
Read about it	39%	48%	50%	56%		
Heard people talk about it	59%	68%	85%	71%		
Seen a film about it	285	38%	44%	45%		
Seen advertisements about it	645	67%	69%	73%		
Seen a T.V. programme						
about it	63%	70%	68%	75%		
Heard a doctor or nurse give						
a talk about it	35%	33%	28%	24%		
Heard about it in a lesson at						
school	16%	25%	34%	33%		
Weighted bases	1577	1516	1550	1461		

Table 3.2 Source of information about lung cancer analysed by type of school attended

	School Type				
Source of Information	Secondary Modern	Grammar	Compre- hensive		
Read about it Heard people talk about it Seen a film about it Seen a film about it Seen a T.V. programme about it Heard a doctor or surse give a talk about it Heard about it in a lesson at school	425 635 415 665 895 335 315	64% 73% 30% 73% 69% 22% 14%	49% 68% 45% 67% 88% 29%		
Weighted bases	3924	1481	899		

it or had seen a television programme or advertisements about it; about half said that they had read about it; about a third had seen a film or heard a doctor or nurse give a talk about it; and a quarter had heard about it in a lesson at school (Q. A8, Book III, Appendix 4). Tables 3.1 and 3.2 show the differences in the proportions of boys mentioning these sources across the four school years and between the different types of school. As the boys got older all sources of information were mentioned more often except the talk by the doctor and nurse. This suggests that exposure to the subject of lung cancer increases as boys get older, but that only fairly recently have the facts been presented to them by medical experts. There were also indications of greater interest in the subject of lung cancer among the grammar school boys than among those at secondary modern and comprehensive schools. Even though, in confirmation of the data discussed in the previous chapter (2.5), health education on smoking from a doctor, nurse or teacher was less common in grammar schools than other types of school, more of the grammar school boys had read about lung cancer or heard people talk about it.

Although most of the boys had beard about lung cancer, a few of them (9%) did not believe that smoking eigar-retice caused it. Fewer smokers than non-smokers or triers were convinced, and more of them though that such agests as 'ozar exhausta', 'dirt', '

There were no differences between schools in relation to this fasse but beliefs did change as the boys get older. Table 3, 3 shows that across the four school years there was a slight decline in the proportions of boys who believed that smoking was the cause of lung cancer, and there was a rise in the proportions of boys who thought that other causal agents were responsible.

Table 3.3 Possible causes of lung cancer analysed by school year

Possible causes of lung cancer	School year					
	1st	2nd	3rd	4th		
Car exhausts Dirt in the air Smoking eigarettes Thick fog	32% 40% 96% 32%	40% 48% 92% 42%	44% 56% 90% 41%	47% 64% 87% 50%		
Weighted bases	1519	1436	1496	1442		

It has often been noted in previous studies (Chapter I) that cacceptance of the belief that amoding causes hung cancer does not necessarily lead the smoker to try to give up smoding, or even to want to do so. That conflict excited by a smoding to the control of the conflict excited by a smoding to the conflict excited by a smod tools to the conflict excited by a smod tools of the conflict excited by a smod to the conflict exci

Table 3. 4 Lung cancer as an inhibitor of smoking analysed by amount smoked

	Cigare	Cigarettes smoked 1 - 9	a week	
Opinion	1 - 9	10 - 19	20+	
Believes could get lung cancer from smoking (Q. A9, Book III) Is put off smoking by the danger of lung cancer (Q. A10s, Book III)			68% 15%	
Weighted bases*	314	208	280	

* 3rd and 4th year smokers only.

How the boys were able to reconcile themselves to the belief that if they went on amoking they would get lung cancer is shown by Table 3.5. Two of the main reasons they gave for not being the state of the among boys of this age group, but it was also backed by more logical rationalisations for continuing amokine, which were reorded the state of the state of the state of the state of the tense ilkely they were to say that they did not smoke enough to get lung cancer, or did not breath the smoke right down into their lungs, but the more likely they were to say that they were which they were the state of the state of the state of the to third appeared to believe that they were "addicted" to smoking.

Other reasons the boys gave for not being put off smoking wore truther defences which smokers are able to use against the health message of the anti-smoking campains (Q. Albo, Book III, Appendix 4). There quarters of the smokers said that you were going to get lung cancer, and over half believed that if they were going to get lung cancers smoking wouldt it make any difference, or that the causal counter that the supplementary of the cancer than only a quarter believed that they were too vouse to get lung cancer than estive.

Table 3.5 Reasons for not being put off smoking by the possibility of lung cancer analysed by amount smoked

	Cigare	ttes smoked	l a week
Reason (Q. A10b, Book III)	1-9	10-19	20+
I enjoy smoking I don't worry about it I don't smoke enough to get lung cancer I don't breathe the smoke right down into my lungs I can't stop smoking	86% 77% 80% 32% 22%	90% 73% 68% 22% 36%	91% 82% 46% 9% 62%
Weighted bases*	204	156	238

 ³rd and 4th year smokers who said they were not put off smoking by the danger of lung cancer.

The relatively small proportion of non-smokers (18%) and the larger proportion of tires (18%), who said they were not put off smoking by the danger of lang cancer, gave the above rationalisations for smoking less often than the smokers, but there were substantial numbers who did express them. It seems that the kind of defences adults use to justify their smoking are well known by loops of this age, and that the anti-smoking campaign is failing to combat them effectively.

Most of the boys believed that smoking could damage health in other ways besides causing lung cancer, but again this belief was held less often by smokers than non-smokers: 78% of the smokers held it. in comparison with 91% of the triers and 93% of the non-smokers (Q. Alla, Book III, Appendix 4). The other ways in which it was thought smoking could affect health were mostly of the kind which boys would be able to recognise in themselves or in others who smoke. In all types of school and at all ages about 80% of the boys thought that smoking 'makes your breathing difficult' or 'gives you bad breath'; and about three quarters said that it 'damages your teeth', weakens you', 'or damages your mouth or throat'. The frequency with which one effect was mentioned varied between the three types of school: 46% of the boys at secondary modern schools thought that smoking 'stops you growing' in comparison with 32% of those at comprehensive schools and 26% of those at grammar schools. More non-smokers and triers than smokers believed that smoking could have all these effects, but substantial numbers of smokers did agree with them; two thirds of the smokers thought that 'smoking weakens you', 'makes your breathing difficult' and 'gives you bad breath'. It will be shown in Part II (Chapter 8) that these minor health hazards in smoking may be able to play a particularly important part in anti-smoking appeals. Because these effects

are easily recognisable reminding smokers about them might be one of the best means of making the health argument against smoking convincing.

3.3 The effect of the campaign on boys' attitudes

Although substantial numbers of smokers said that they were not put off smoking by the danger of lung cancer, there were several indications that the campaign had affected their attitudes to it in other ways. The boys were asked what they thought the right age was for boys and girls to take up smoking (Q. A5a and Q. A5b, Book III, Appendix 4): 37% of them thought that boys should not take up smoking at any time in their lives, and 48% thought that girls should not take up smoking either. Although total opposition to smoking was more rare among smokers than non-smokers, 11% of the smokers thought that boys should not take up smoking and 26% held this view about girls. Further disapproval of smoking on the part of the boys was shown by their attitudes to their own future role as parents; 91% of nonsmokers said they would not allow their own children to smoke, in comparison with 83% of triers and 63% of smokers (Q. A13, Book III. Appendix 4).

More evidence that the campaign was affecting boys' attitudes to smoking was betained by asking smokers whether they wanted to stop smoking or whether they meant to go on (Q. 200). The property of the prope

The smokers were asked why they wanted to give up smolding (2,01 (iii), 800-111, Appendix 4) and the thres who claimed they had stopped smoking why they had done so (Q. 1e (1), 800-111, Appendix 4). Over 90% of the smokers gave the reasons: I think smoking costs too much, "I think smoking is had for my health", I think work is it had for my health", I think I work is the first or sports, and I want to prove that I can stup'. There had fewer reasons for slopping smoking thin support the stup'. There had fewer reasons for slopping smoking thin experiment most often by them were. I thought smoking southing think of the smoking when the short of the smoking when the short of the smoking variety of the smoking of the smoking variety and the present didn't like me smoking ("G05), I the me smoking ("G05), and "my parents didn't like me smoking ("G05).

Both groups of boys (smokers and triers) were asked to indicate which reason out of those which they had given was most important of all of them (Q.1e(ii) and Q.2i(iii), Book III, Appendix

4). There were no differences in the reasons given by the boys at the different types of school, but changes did occur in them as the boys got older. Table 3.6 shows the main reasons selected by triers in each of the four school years, and Table 3.7 the main reasons selected by main reasons selected by main/era.

Table 3.6 Triers' most important reason for giving up smoking

Research		Scho	ol year	
	1st	2nd	3rd 18% 11% 12% 15% 20% 5% 17% 3%	4th
I didn't like smoking My parents didn't like me smoking Smoking cost too much Smoking cost too much I bought I might get lung cancer I bought I might get lung dane my health I bought smoking was bad form my health I bought smoking was as dirty habit I thought wouldn't be fit for sports I wanted to prove that I could stop	13% 17% 35, 23% 17% 5% 15% 7%	21% 7% 5% 16% 23% 5% 17% 6%	11% 12% 15% 20% 5% 17%	24% 6% 10% 12% 23% 5% 13% 8%
Weighted bases*	265	r	458	458 584

^{*} Triers who had given up smoking.

Table 3.7 Smokers' most important reason for wanting to give up smoking

Reason	School year			
Nevisor	1st	2nd	3rd	4th
I don't like smoking My parents don't like me smoking I think smoking oosts too much I think! I might get lung cancer I think I might get lung cancer I think smoking is had for bealth I think smoking is had for bealth I think I won't be lift for sports I want to prove that I can stop	34% 37% 21% 1% 7%	20% 5% 33% 11% 5% 13% 16%	5% 12% 12% 27% 18% 2% 7% 17%	8% 9% 17% 24% 26% 3% 8%
Weighted bases*	26	73	152	214

^{*} All smokers who said they wanted to give up smoking.

These tables provide a good indication of the features of the anti-smoting campaign which matter most to boys of different ages. Thus it is notable that only as features and smokers was 'smoking costs to much' self-didest triers and smokers was 'smoking costs to much' self-didest rivers and numbers as their principal reason for giving up smoking. For the youngest boys 'my parents don't like me smoking' appears.

to be a more important reason, particularly among the smokers (34% selected it). At all ages health reasons including: 'I might get lung cancer', 'I think smoking is bad for my health', and 'I won't be fit for sports' were selected by about half the boys, which suggests that the campaign is having a marked effect on awareness of the health risk in smoking. But it is notable that as they got older fewer boys gave lung cancer as the principal reason, and more gave general health. Dislike of smoking was selected as the principal reason for giving up by about one fifth of the triers in the second, third and fourth years and by about one eighth of those in the first year. This reason was not given at all by the smokers in the first and second years and was selected by about one twentieth of those in the third and fourth years. Its prominence for triers suggests that many of them may have still been at a stage in their smoking careers when the unpleasantness of smoking the first one or two cigarettes was still strong enough for them to resist the pressures to go on experimenting with smoking.

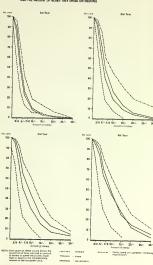
3.4 The cost of smoking

Although the reasons a bog gives for wanting to give up smoking provide a good indication of its mattractive features for him we cannot be certain that they carry sufficient weight to make him change his behaviour. Much of Chapter 8 [Part II] will be concerned with ways of making the various themes of anti-smoking appeals more effective. But it is worth considering at this point the real relevance for boys in this age group of the 'cost of smoking' as a reason for giving it up.

A recurrent theme of anti-smoking appeals directed at school-children has been that the money they spend on cigarettes could be spent on other more attractive things if they gave up smoking. We saw in chapter 2 that most boys (about 30%) do spend money on cigarettes, but the whole usefulness of the "saw money" as a similar than saving if they gave up smoking, a similar saving if they gave up smoking.

The amount of money the boys were spending in relation to the total amount they had to spend in shown in Figure 1.1, (feerived from Qibs, Book III., Mook III., Appendix 6). These spending money of sunders, threat and non-smokers with the amount of money spend end week on smoking by smokers. Each point on the tree-problet money curves above the proportion by the proportion of the properties of the proportion of the properties of the properties of the properties of the properties of smokers that the properties of smokers who were spending each week shows the proportion of smokers who were spending each week amount on the bortontal axis; such point on the properties of smokers who were spending each week amount on the bortontal axis; such that the properties of smokers who were spending each week amount on the bortontal axis; such that the properties of smokers who were spending each week and the properties of smokers who were spending each week and the properties of the p

FIGURE 3-1. COMPARISON OF THE AMOUNT OF MONEY WHICH BOYS SAVE OR SPEND IN ANY WAY THEY LIKE AND THE AMOUNT OF MONEY THEY SPEND ON SNORING



It is clear from these diagrams that smokers were substantially better off than non-molera or trees at all ages. Looking at the 50 per cent points on each 'pocket money' curve we see that in the first year the smokers were related to the first year the smokers were related to the first year the smokers were related to the first year the corresponding amounts were 14/- for the smokers, 10/- for theirs and 9/- for non-smokers. But having more money dated mean that the smokers, 10/- for theirs and 9/- for non-smokers. But having more money dated to the smokers and the smokers are smokers as well as the smokers are smokers as well as the smokers are smokers as well as the smokers as well as the smokers are smokers are smokers. The smokers are smokers are smokers are smokers are smokers are smokers as well as the smokers are smokers are smokers.

These last findings are not surprising when we look at the proportions of the smokers' pocket money which was being deproporated to cigarettess. On average, about one third of their weekly pocket money was being spent on smoking. In the first year the average expenditure on smoking was 2/- a week which compares with an average pocket money of 8/-a week; in the fourth year the figures were 4/- spent in comparison with 1/4 received.

A third of a boy's pocket money spent on cigareties seems a scenable expenditure, and it suggests that the 'coat of smoking' is a valuable theme for and i-moding appeals. But if the items which are displayed in advertisements as possible substitutes for cigareties are to be thought realistic it would seem important that they should have some relations. But is ween hosting that they should have some relation. But is ween hosting that the average first year boy who gave up smoking for a year would only save about it 5 and the average fourth year boy shout \$1.0.

3.5 Conclusions

It is clear that the campaign has succeeded in making boys aware of the health risk in smoking, and that most boys of this age are sufficiently interested in the subject to read about it and discuss it with their friends. Even though some sources of information, e.g. the sportsmen who appear in anti-smoking advertisements. are treated with a certain amount of scepticism, particularly by smokers, a surprisingly large number do believe that smoking causes lung cancer and that if they smoke they will get lung cancer themselves. In addition many boys, including smokers. acknowledge that smoking can damage health in other 'minor' ways besides causing lung cancer and substantial numbers appear to want to give up smoking - not least because it is very expensive for them. But the information gap is still not completely bridged. Smokers are able to cite other causes of lung cancer besides cigarettes, and the more they smoke the less likely they are to be put off by the belief that they will get lung cancer from smoking.

^{*} This estimate of an average amount is known as the 'median' amount.

Rationalizations for continued smobing also gather strength as a same boys come to smoke more heavity, and long cancer as a a same for giving up smoking becomes less prominent as they get offer. These findings sungest that large numbers of smokers are ambivalient about the smoking habit. But ambivalence in itself is no positive ones. It engelies aspected of smoking may supplant the positive ones. It engelies appected of smoking may help to reinforce its unattractive the expense of smoking may help to reinforce its unattractive the expense of smoking may help to reinforce its unattractive the expense of smoking may help to reinforce its unattractive the expense of smoking may be appeared to the smoker of the

4. THE SOCIAL BACKGROUND AND INTERESTS OF SMOKERS

The growing boy is abjected to a number of influences which a prediagone him to try amoling. The family he comes from, the friends he has, the school he attends, all go to create the kind of environment in which smoking may be inhibited or encouraged. At the same time his personal interests and ambitions my like a present the school of the contract of the contract

4.1 Family background

Smokers tended to come from large families – particularly those in which there we older brothers and sisters; 485 off the smokers had 2 or more older brothers and sisters in comparison with \$45 of tries and \$45 of one-moders (Q. 30), Book 1, Appendix 4). The older brothers' and sisters to comparison between the contractions of the contraction of the con

Table 4.1 Smoking experience analysed by number of older brothers and sinters who smoke

	No. of older brothers and staters who smoke (Q.A1, Book III)				
Smoking experience	None	1	2	3	4+
Non-smoker Trier Smoker	% 62 28 11	% 38 37 25	% 35 37 28	% 35 38 28	% 25 52 23
Total	100	100	100	100	100
Weighted bases	3907	1221	549	244	183

It is notable that it was the tendency to be a trier, rather than a snoker, which was most strongly associated with the presence of older brothers and sisters in the boys' families. Although the proportion of boys who had reached the stage of regular smoking rose as the number of these older brothers and sisters increased, there was a creater rise in the proportion who

had reached the slage of bring modelay. This finding suggests that the boys' older trothers and elaters were accruit an important influence on their first smoking attempts, but there and influence on their first smoking attempts, but there are first the sum of the state of the

In view of the strong association between older brothers' and sisters' smoking hattis and the boys' own smoking experience it might be expected that pracerds' smoking hattis would also be associated with the smoking experience of their sons. As can support the smoking experience of their sons. As can support the smoking with the smoking was only alighily more common among the smoking was only alighily more common among the smoking was only appreciate smoked that it was a final time where satisfies a smoked. And the tendency to be a triew was also no stronger smoked. And the tendency to be a triew was also no stronger smokers, were smokers than it was when they were nonmonitors.

Table 4.2 Smoking experience analyzed by whether parents smoke or not

Smoking experience	Pare	Parents smoking (Q. A3, Book III)				
amoking experience	Neither parent smokes	Only father smokes	Only mother smokes	Both parents smoke		
Non-smoker Trier Smoker	% 59 29 13	% 53 32 15	% 51 30 19	% 51 30 19		
Total	100	100	100	100		
Weighted bases	1160	1709	672	2563		

Most earlier studies (Chapter 1) have stressed the importance of parental examples as an influence on children's smoking bahaviour, and it is a little surprising that our claim did not give more indication of it. What appeared to be more strongly related to the boys' smoking experience was their parents' attitude ownered smoking. The boys were asked what they thought their boundard of the smoking of the strength of the strengt

Table 4.3 Smoking experience analysed by whether parents punish children for smoking

		arents would do if he hem (Q. A4, Book I	smoked in front o
Smolding experience	Wouldpurash child and tell him not to smoke	Would just tell child not to smoke	Would do nothing
Non-smoker Trier Smoker	% 59 30 11	% 46 31 23	% 25 24 51
Total	100	100	100
Weighted bases	3846	1892	366

whereas of those who thought they would be punished only one tenth smoked.

Of course it needs to be said that data of this kind which come from the boys' perception of their parents' attitudes may in part be a distortion of the true situation. A boy who is questioned about smoking is under a certain amount of pressure to justify his behaviour, and it is clearly easier for him to say that his parents, in effect, approve of his smoking than it is for him to say that they disapprove of it. There is a good evidence to suggest, however, (considered in detail in Chapter 7, (Part II) that the strong association shown in Table 4.3 cannot be accounted for entirely in these terms. Smokers seemed, more than nonsmokers, to live in homes in which a permissive atmosphere surrounded smoking. Although barely any boys had obtained their first cigarette from their parents (4%), or were currently getting their cigarettes from them (2%) (Q. 1b and Q. 2d, Book III, Appendix 4), they appeared to have easier access to cigarettes in their own homes. More smokers and triers than non-smokers said that cigarettes were often left lying about at home (Q. A2, Book III. Appendix 4), and in conjunction with the fact that the former tended to have brothers and sisters who smoked this points to a fairly accepting attitude adopted by their parents towards smoking.

It has been observed in previous studies that smothing is less common in the higher social status sections of the population than it is in the lower ones. For example, employing a condensed version of the Registrar General's skidold classification of excupations, McKemella and Thomas (1987) found that 53% of those adults whose occupations placed them in classes I, in or III, forclessional, managerial and other non-manual) had smoked

regularly at some time in their lives, in comparison with 71% of those in classes IV or V (sem's the side and unskilled manual occupations). It was expected that this variation in smoking experience between classes would harry occur among the boys divided in groups defined by the other lost of their fathers. Barely any variation was found. The control charge smoking experience was relatively independent of their fathers' social class (Q.4 Book I, Appendix 4).

a

It has been argued (Centers 1949) that social classes are better defined by the self-selection of their members than by objective classification of such characteristics as occupation. In order to investigate the influence of social class defined in this way, the boys were asked what social class they thought their family belonged to. About one third said that they did not know or did not think that their family belonged to any particular class. But among those who did express an opinion there was a slight tendency for smoking to be more common among those who thought their family was 'working class' than among those who thought their family was 'middle class' (Table 4.4). Although it would be unwise to make too much of what amounts to a relatively small association, it does seem possible that some boys may think that by smoking they are adopting the appropriate role of the social class to which they think they belong. If they are adopting such a role these boys are in fact accurately reflecting the situation in the adult world.

Table 4.4 Smoking experience analysed by perceived social class

	Perceived Social Class (Q. 17, Book I)					
Smoking experience	Upper Middle class	Middle Class	Working Class	No. Parti- cular Class	Don't Know	
Non-smoker Trier Smoker	% 59 29 12	% 55 30 15	% 49 29 22	% 50 34 16	% 56 29 15	
Total	100	100	100	100	100	
Weighted buses .	289	1578	2176	522	1539	

4.2 Peer Group Pressures

In the early teens an important new influence on a boy's behaviour and values comes from his group of friends. As noted by the Plowden Committee (C. A.C. E., 1966, ch I), from ages 8-12 children move increasingly into groups composed of children of their own age and maturity (peer groups). And the behaviour adopted by the leader of the group or the majority of its members will be an example for all of them.

There was evidence from the history of the boys' smoking attempts that their friends had played a major part by either encouraging them to smoke or by giving them access to cigarettes. Far more of them (57%) had obtained their first cigarette from a friend than from any other source (Q.1b, Book III, Appendix 4), and a substantial minority (10%) of those who were smoking at the time of the survey usually got their cigarettes from friends (Q. 2d, Book III, Appendix 4). The reasons given by the boys for smoking also suggested that many were under pressure from their friends to smoke. Thus although the most common reason given for smoking the first clearette was curiosity ('I wanted to know what smoking was like'), one quarter gave such reasons as: 'I was dared to smoke'; 'I was showing off'; 'I wanted to be like my friends who smoked' (Q.1c, Book III, Appendix 4). And among those who were smoking at the time of the survey one third said that one of their reasons for doing so was because their friends smoked (Q. 2a, Book III, Appendix 4).

Further direct evidence from the boys themselves about the pressure they were ender from their friends came from two opinion question. Table 4.5 compares the proportions of smokers, smokers who agreed with the statements: 'Others are often encouraging me to smoke' and 'If you don't smoke other boys make fun of you'.

Table 4,5 Social pressure to smoke

	1	Smoking experience				
Opinion	Non- smoker	Trier	Smoker	Total		
Others are often trying to encourage me to smoke (Q, D17, Book III)	54%	62%	46%	55%		
H you don't smoke other boys make fun of you (Q. D27, Book III)	46%	42%	30%	429		
Weighted bases	3230	1836	1038	6104		

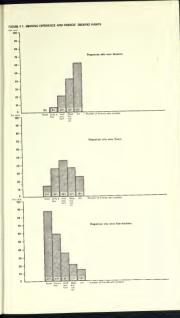
Over half the boys endorsed the first of these statements and just below half endorsed the second. But what is particularly notable is that the boys who were not smoking (triers and non-smokers) endorsed them most. More triers (62%) than any other

group said that friends often encouraged them to smoke, which suggests that these boys who had cossed their attempts to amoke were under the greatest pressure of all from their friends to this up smoking. Substantial numbers of non-smokers and triers indicated that they fait they were making fools of themselves by not smoking; over 40% of them agreed that other boys make fun of you if you do not smoke in comparison with 50% of smokers, or the smoking that the smokers of you if you do not smoke in comparison with 50% of smokers, or you will be smokers that the smokers of your first own these opinion thems suggests that the need to conform with the conformal that the conformal three conformal three the conformal three conformal thr

The extent to which smoking was the norm rather than the exception among the boys' friends is shown in Figure 4.1 (derived from Q. A6, Book III, Appendix 4). The three diagrams provide a striking illustration of the extent to which group conformity occurs in relation to smoking.

The top diagram shows that among those boys who said that more of their friends smoked there were no smokers, whereas among those boys who said all their friends smoked 62% were smokers. In marked contrast, as the bottom diagram shows, among boys who said that none of their friends smoked 67% were friends smoked only 18% were non-smokers, that all of their friends smoked only 18% were non-smokers.

The middle diagram provides further evidence of the kind of pressure which triers were under to continue smoking. The proportion of boys who were in the triers' category rose to a peak at the point where half their friends were smokers and then declined as smoking became increasingly the norm among their friends. We have already seen that triers, more than any other group, felt that their friends were often encouraging them to smoke, and it is notable that the highest proportion of boys who were triers (45%) occurred among groups of boys half of whom were smokers. It is not difficult to imagine the kind of conflict which probably exists for triers within these groups. The triers have had some experience of smoking but by stopping have temporarily identified themselves with the non-smokers. The smokers in the group encourage them to smoke and the nonsmokers probably do little to actively discourage them. Their early smoking attempts have taken them over one barrier against smoking, i.e. learning the technique of smoking a cigarette, and all they have to do to become smokers is accept the cigarettes which are offered to them. If any of them do succumb, however, then the balance in the group is soon broken; non-smokers become the minority and smokers become the majority. The boys who are still trying to keep off smoking then have increasing difficulty in doing so; their numbers steadily decline as the group moves progressively towards smoking.



4.3 Educational career

It was shown in Chapter I that smoking was slightly less common among boys attending grammar schools than it was among boys at secondary modern and comprehensive schools. A boy who at secondary modern and comprehensive schools. A boy who at secondary modern and comprehensive schools. A boy who shall see that the school of the school of

Data on achievement within the schools were obtained from three sources. The boy's headmanters were asked for rate the acatemia chility of the forms sedected for the sample in terms (11) and the control of the contr

Tables 4.6 and 4.7 show a clear association between smoking experience and lack of educational nationment which increases as the boys move up the school. Boys who had entered a partitional properties of the pro

The source obtained from the vocabulary test (part of the Mill Hill Vocabulary Scale, Raven, 1965), were standardized for each group in terms of percentiles (see item 93 Appendix 5, for full details). This means that boys from different age-groups can be compared with each other in terms of the same set of scores in spate of the fact that the "aw" vocabulary soores increase with age.

Table 4.6 Proportion of boys smoking related to average academic ability of form for each school year

	Average academic ability of form				
School Year	Grammar School level (IQ = 121+)	Above Average (IQ=106-120)	Average (EQ-95-105)	Below Average (XQ=85-94)	Dul1 (3Q=84-)
1 st 2nd 3rd 4th	8% (63) 6% (108) 7% (124) 23% (159)	2% (451) 6% (365) 15% (240) 28% (333)	4% (472) 14% (514) 17% (366) 25% (177)	11% (287) 18% (265) 24% (555) 38% (489)	4% (150) 19% (194) 25% (140) 55% (17)

Note: 1 Figures in brackets are bases for percentages.
2 Headmaster's ratings were not obtained for 10% of the total sample.

Table 4.7 Proportion of boys smoking related to position in form for each school year

	P	osition in form	(Q.18b, Book !	0
School Year	Top 5	Top 10	Above the Middle	Below the Middle
1 st 2nd 3rd 4th	3% (228) 7% (248) 17% (248) 25% (255)	6% (357) 8% (357) 22% (364) 28% (359)	4% (707) 14% (573) 15% (570) 34% (564)	4% (290) 12% (333) 27% (347) 48% (284)

Table 4.8 Proportion of boys smoking related to vocabulary score

	Vocabulary score				
School Year	Score in top 50% for	age-group		ottom 50% for group	
1st 2nd 3rd 4th	2% 7% 17% 31%	(969) (757) (605) (609)	8% 16% 21% 35%	(610) (742) (944) (871)	

with smoking experience did not increase with age suggests that the smoker's lack of interest in school work is probably at least as important as his lack of ability, as such, in causing him to fall behind the others.

4.4 Leisure interests

If smokers do badly at school work because they are not interested in it, their main energies and enthusiasms must be directed elsewhere. To enlarge the picture of the boy smoker it is useful to find out what kind of interests do distinguish him from other boys. The boys were asked to select from a list of leisure activities the three they liked to do most in their spare time (Q. 6, Book I, Appendix 4). The most popular were 'sports' and 'games' and 'watching T. V. or listening to the radio', which were selected by about half the boys; the least popular were 'going to coffee bars' and 'dancing', which were selected by less than 10%. Although there was little difference in the popularity of these activities between the boys in different types of school (Table A8, 8, Appendix 8) there were changes in the popularity of several of them as the boys got older (Table A8.7, Appendix 8). Thus 'dancing', 'going to coffee bars', 'going to youth clubs', 'going out with girls', and 'chatting to a group of friends' were selected more often as the boys got older; whereas 'sports and games', 'reading, writing or drawing', 'watching T.V. or listening to the radio', 'gardening or care of pets', and 'woodwork or making models or other things' were selected less often.

At all ages there were differences between the activities which were attractive to smokers and those which were attractive to non-smokers. Table 4.9 shows the activities which were selected more often by smokers and Table 4.10 those which were selected more often by non-smoker.

One obvious distinction between smokers and non-smokers shown by these tables is that smokers tended to prefer the social type of activity taking place outside the home ('youth club', 'the

Table 4.9 Leisure activities preferred by smokers

Leisure activity	Non- smokers	Triers	Smokers
Going to the pictures Going duncing Going to coffee bars Going to youth clubs Going out with girls Chatting to a group of friends	30% 3% 2% 11% 19% 9%	31% 6% 3% 17% 38% 14%	39% 15% 13% 27% 67% 14%
Weighted bases	3230	1836	1038

Table 4, 10 Leisure activities preferred by non-smokers

Leisure activity	Non- smokers	Triers	Smokers	
Sports and games Cycling with a group of boys Reading, writing or drawing Woodwork or making models and other things Watching T.V. or listening to the radio Gardening or care of pets	57% 28% 35% 38% 50% 19%	52% 28% 22% 22% 46% 16%	42% 18% 9% 18% 29% 8%	
Weighted bases	3230	1836	1038	

Note: Figures for each activity give the proportions of boys who selected it as one of the three things they liked doing most.

pictures, 'dancing', 'cefee bar', 'going out with girla'), whereas mean-emokers were now solitury in their interests, and preferred the kind of activity which could be done at home ("woodwerk', irreading', 'westing Tv.', 'gardening', Tmis differentially, Tv.', 'gardening', Tmis differentially, Tv.', 'gardening', Tv.

But it was not simply spending time outside the home and liking the company of other boys which most clearly distinguished the smokers from the non-smokers. Two activities which took place outside the home - 'sports and games' and 'cycling with a group of boys' - were selected by more non-smokers than smokers, and the social activity of 'chatting with a group of friends' was not significantly more popular among smokers. What did seem to characterise the activities which appealed more to smokers were those which were generally liked by older boys -particularly those activities in which there was the possibility of mixing with the opposite sex. Thus the biggest difference of all between smokers and non-smokers occurred for 'going out with girls': 67% of the smokers, chose this as one of the three activities they liked to do most. in comparison with only 19% of non-smokers. Smokers not only valued mixed company but they also tended more than non-smokers to have girlfriends; 47% of the smokers usually went out in their spare time with a girlfriend or a group of boys and girls in comparison with 15% of non-smokers (Q.13. Book I, Appendix 4). Smoking was no more common in 'mixed' schools than 'boys only' schools so it was not simply the opportunity

to know girls which was associated with taking up smoking. What seemed to be linked to smoking was the desire to form relationships with girls as part of mixed group social life. This social life exists outside the school and may be in conflict to a certain extent with the school's aims. The smoker's attraction to it. therefore, may account in part for his poor school performance. But this is not the whole story. Data on the way in which boys perceive smoking (reported in Part II, Chapter 6,) show that smokers in the school setting do aspire, by and large, to the same goals as non-smokers, and their failure to achieve them suggests that they have a need to achieve status in other ways, Without going into the details at this point of how they are able to do this it is worth drawing attention to the differences between smokers and non-smokers in relation to 'sports and games', The greater popularity of this leisure activity among non-smokers than among smokers, which only became apparent after the first year, may be a reflection of its close ties with school. But in spite of the smokers' weaker interest in sport, they appeared to be, if anything, slightly better at it than non-smokers: 49% of smokers were members of school or club sports teams in comparison with 41% of non-smokers. (Q.10, Book I, Appendix 4). Perhaps, boys who take up smoking are more extraverted and physically advanced than the others and this gets them into sports teams even if their main interests lie elsewhere. It is notable that by doing so they are probably able to impress the boys who are leaving them behind in school work.

In relation to most of the leisure activities triers appeared to hold an intermediate position between non-smokers and smokers. They were not attracted much more than non-smokers to such social activities as 'dancing', 'coffee bars' or 'the pictures' and they shared their interest in sports and games; but they were far less attracted than them to such home-oriented activities as 'reading, writing or drawing', 'woodwork or making models' and 'gardening or care of pets'. In relation to 'going out with girls', they were half-way between non-smokers and smokers. This last finding suggests that triers were beginning to develop an interest in the opposite sex, but unlike smokers they were not leading the kind of social life which brought them into contact with girls. Only a minority of triers spent most of their spare time outside their homes (Q.7, Book I, Appendix 4), and also like non-smokers not many of them had girlfriends. More of them than of either non-smokers or smokers usually went out with a group of boys (Q. 13 Book I, Appendix 4).

The smokers' attraction to the teenage world outside the school was also shown by data about their pocket money and the way in which they liked to spend it. It was shown in chapter 3 that even though more smokers than non-smokers were usually 'broke at the end of the weel' and that fewer of the former saved any of their pocket money, smokers on average received more pocket money than non-smokers. The superior wealth of the smokery money than non-smokers. The superior wealth of the smokery and the smokers of the

may have been due to the fact that at all ages more of them had part-time jobs: 57% of the smokers had a paid job costic school hours in comparison with 41% of tries and 25% of non-smokers. (Q. 20, Book I, Appendix 4). The part-time job may be seen as another activity which is some respects coefficies with the aims of the school. It is notable that again smoking is associated with such an activity.

The boys who were saving any of their pocket money (84%) were asked with they were saving for (2, 10%, 800.44, Appendix 4). The most popular item was 'a bollday', for which one third were saving, followed by such items as 'clothes', 'sport sequiment', and 'ticycle or bicycle squre parts', each of which was not-amolters were were surject of about one with the contaminates were were the same of the contaminates were were the same of the same that t

A similar picture was obtained from a question about the things the boys would have liked to buy if they could have well and to buy if they could have allored them (Q. 23, Book I. Appendix 4). Once again, the most popular time was healthy or tracking the state of the proposal relative to the property of the property

In each school year some items were wanted more by smokers than by non-smokers. Only 'hollday or travel,' 'record players or the recorder at you have no smokers instrument' were wanted to the recorder at you have no smokers and Table 4.12 those ttems which were wanted more by smokers and Table 4.12 those items which were wanted more by non-smokers.

The difference between the items wanted by smokers and those wanted by somewhere is in further relication of the difference in their interests. The items which were more attractive to smokers of clarge-tasts, 'clothes' and 'records' were those whose popularity increased as the boys got older, and those which were more attractive to non-embers' Dockois, "open sequenced" before the consideration of the contractive to the common of the contractive to the common of the contractive the contractive that the contractive correction of the contractive that the contractive correction of the contractive contractive that contract is contracted in the contractive correction of the contractive c

Table 4.11 Items which more smokers than non-smokers would like to buy

Rem	Non-smokers	Triers	Smokers
Cigarettes Clothes Records	1% 59% 36%	4% 67% 46%	71% 82% 46%
Weighted bases	3230	1836	1038

Table 4.12 Rems which more non-smokers than smokers would like to but

Item	Non-smokers	Triers	Smokers	
Books Sweets and ice cream Bicycle and spare parts Sports equipment	56% 50% 62% 57%	42% 51% 63% 55%	25% 39% 52% 48%	
Weighted bases	3230	1836	1038	

in the teenage world outside the school. Clothes, particularly, are a means of identifying with a particular social group and of appearing attractive to the opposite sex. In this age group it is the smokers who are the first to want to achieve these aims.

In relation to the two items which discriminated most strongly

between smokers and non-smokers ('duddes' and 'books') the triers held a pointin which was had very between the other two groups. In the extent of their desire for reviews the other were virtually be same as smokers, whereas in relative, they sports equipment', 'sweets and tie cream', and 'bicycle or it-'sports equipment', 'sweets and tie cream', and 'bicycle or itycle super parts' they were much the same as non-smokers. Once again this suggests that trors are an intermediate group once the property of the superior of their interests towards the position of me to me in some of their interests towards the position of me to they are still more attracted than smokers to the interests and activities (e.g., cycling) of the 'boys only 'group.

4.5 Occasions for smoking

A final Insight into the type of social life which appeals to smokers was obtained from the situations in which they said they smoked cigarettes. They were presented with a list of possible occasions for smoking (drawn up from pilot data) and were asked to indicate on which of these occasions they themselves smoked. Table 4.13 shows the change in the pattern of smoking behaviour as

Table 4.13 Occasions for smoking analysed by school year

Occasion for smoking	School Year			
	1st	2nd	3rd	4th
I. At parties 2. At the pictures 3. In coffee hurs 3. In coffee hurs 5. At bowling alleys 5. In parks 7. In the country 8. In the country 9. In the street 10. At home 11. At a friend's home 12. When I reel bored 3. When I am encommentrate	15% 60% 24% 11% 20% 70% 73% 59% 57% 10% 41% 41%	39% 79% 43% 35% 26% 78% 79% 64% 53% 63% 57% 39%	54% 89% 60% 51% 38% 77% 69% 56% 32% 61% 56% 44%	66% 88% 68% 61% 45% 78% 74% 37% 70% 57% 45%

In the first year the most popular places for smoking were parked and the country, followed by "at the picture", the street, and 'empty buildings'. It is notable that all of these the parked of the property buildings'. It is notable that all of these the previous of adults. As the bowy got older although out-door places ('parkel, and 'the country') continued to be popular, 'empty buildings' were used less, and 'the street' was used more. Other size when the street was used more. Other size when the place of entertainment as 'coffee bear older were more hobble places of entertain-buildings when the places of entertain-buildings alter was the size of the places of entertain buildings and the size of the places of entertain buildings and the places of entertain buildings and the places of the places of entertain the places are the places and the size of the places and the places

Another occasion for smoking, which was mentioned more often as the boys of older, was the party's Parties in conjunction with 'Corffee bar's accident line party's parties in conjunction with 'Corffee bar's accident life of older adolescents, which, as has been shown earlier, had more of an attraction for smokers than non-smokers. The sharp rise over the four shock of the proportion of the propertion of the school years is the proportion of the propertion of the school years is the proportion of the open of the propertion of the social life of older teemagers. In the fourth year the majority were smoking while participating in mixed group social activities.

It is worth noting, that the cinema was by far the most popular place for smoking in this age-group. A higher proportion of all smokers 85% said they smoked when 'at the pictures'

than on any other occasion. The cinema is of particular interest because it may be one of the few places outside the school supervised by adults where smokers and non-smokers are likely to be at the same time. Referring back to Table 4.9, 39% of the smokers, 31% of the triers and 30% of the nonsmokers gave 'the pictures' as one of the three things they liked doing most. And although smokers did in fact go to the cinema more often than non-smokers, substantial numbers of non-smokers also went regularly; 67% of the smokers had been to the cinema in the last fortnight in comparison with 53% of triers and 46% of non-smokers (Q 11, Book I, Appendix 4), The importance of the cinema in the development of the smoking habit may not have been sufficiently recognised in the past, Many boys probably conduct their first experiments with cigarettes under the cover of the darkness that it provides (e.g. at Saturday morning film shows), and if they don't smoke themselves they can observe others who do.

On all the occasions for smoking which have been considered on far with the possible exception of 'all mone,' the byen would probably have been smoking in the company of others. Smoking the times 'social' stations may well be largely a response to the need for a boy to conform with his group of riends. But the need for a boy to conform with his group of riends. But we will be the proper of the need for a boy to conform with his group of riends. But he never the statisfaction of a very different kind of —seem to represent the statisfaction of a very different kind of —seem to represent the statisfaction of a very different kind of —seem to represent except in fact, which many adults seek to natisfy by smoking. There was not much change over the four school years making. There was not much change over the four school years in the proportions of boys who said they smoked in these 'personal look on the proportions of boys who said they smoked in these 'personal look on the proportions of boys who said they smoked in these 'personal look on the proportion of boys who said they smoked in these 'personal look on the proportion of the p

Although there was a general tendency for boys who smoked in social; "situations to smoke in "personal need" situations as well, there was evidence that some boys were smoking only in which the state of the state

In Table 4.14 the general level of correlation within the set of social situation items and within the set of personal need items is higher than the correlation between them. This points to the

These are product moment point correlation coefficients between dichotomous variables which means that in most cases the maximum value of the coefficient is in fact less than 1 or the minimum value more than -1. (See McNemar, 1962, p.198).

Table 4.14 Correlations between mixed group social situations and personal need situations

					Ite	m.			
	Smoking situation	1	2	3	4	5	6	7	8
1.	Parties	x							
2.	Coffee bars	.61	Х						
3.	Dance Halls		.70						
4.	Bowling Alleys			.67					
5.	When bored			.51					
6.	When nervous			.51					
7.	When I wish to concentrate			.55					
8.	Smoking calms me down	.42	.43	.42	.44	.54	.65	.55	х

existence of two groups of boys, one whose smoking is part of mixed group social life, and the other whose smoking is more strongly associated with the satisfaction of a personal need. * It is notable that this latter group of boys smoked, not only when they were bored or wished to concentrate, but also when they were nervous or because smoking 'calmed them down'. Although further analysis of the characteristics of the boys who smoked in these personal need situations failed to reveal any other characteristics which clearly distinguished them from those who smoked in social situations, other data provided more evidence of satisfactions gained from smoking which were independent of adolescent group activity. Half the boys said that they smoked as much on their own as they did with other children, or smoked more often when they were alone (Q.2g, Book III Appendix 4). And as many as 67% said that when they felt nervous or tense and wanted to relax, they smoked a cigarette (Q.23b, Book I Appendix 4)

Whether boys who were all aged less than 16 were really getting any 'therapeutic' benefit from smoking, or whether they were simply identifying their reacons for smoking with those which they know many adults give is difficult to judge. It is probably correct to conclude that the main pressures on a boy to smoke are social and that one of the main satisfactions he gains from smoking comes from the feeling that he is conforming

The charring of occasion for smoking into two groups was indicated by the residuel of an elementary likespa suspice (McQuitty, 1977, which also pointed to two other groupings two; group smoking (tients 6-9, table 4.13), and 'making at home (tients 10 and 1, table 4.13). However, the constitution between the occasion control of the correlations between the occasion control of the correlations between the occasion control of the correlation of the correlation of the correlation of the control of the control of the correlation of the control o

with his group of friends. Nevertheless, it would seem important that health educators should recognise that many boys do betleve that smoking helps them in situations of personal stress, and that this gives them a strong reason for continuing to smoke.

4.6 Conclusions

A permissive home background, elder brothers and sisters who someke, a circle of friends who are mothers and poor achievement at school, all accompany of the property of the

PART II

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The Motivation of Schoolboys' Smoking



5. RECRUITMENT TO SMOKING

But I of the report has provided a picture of the type of boy who takes up smoking. We have seen that he tends to come from a home where permissive attitudes are hold towards smoking, he is likely to have been of the consideration of monthing to the consideration of the consideration of the first the constitution of the consideration of the consideration of the last moment takely to be found in the lower schlevement groups at echool, and to move in a circle of friends most one whom are smokers. If the consideration of the consideration of the whom are smokers and the consideration of the consideration of the second confideration of the consideration of the consideration of the second confideration of the consideration of the consideration of the second consideration of the consideration of the consideration of the second consideration of the consideration of the consideration of the second consideration of the consideration of the consideration of the second consideration of the consideration of the consideration of the second consideration of the consideration of the consideration of the second consideration of the consideration of the consideration of the second consideration of the consideration of the consideration of the second consideration of the consideration of the consideration of the second consideration of the consideration of the consideration of the second consideration of the second consideration of the consideration of

In this section of the report we shall consider the results of turber analysis of these attributes, drawing them together into a coherent framework in which we shall take into account not only their seasonism with mothing the constraints of the same the full range of data collected in the survey, we shall seed the full range of data collected in the survey, we shall develop a simple explanatory model suggesting two byca are led to take up smoking. And are recruitment to the smoking fraternly may be reduced.

5.1 Variables used in the analysis

In order to investigate the full range of influences which may predispose a boy to take up smoking we constructed 80 variables to measure different features of their home life, personal characteristics, and beliefs and attitudes. Some of these variables were derived from the questions which we considered in part I of the report; the others were attitude and behaviour scales constructed from sets of questions in the Book II and Book III questionnaires. The rationale for constructing scales and the details of the method employed in their construction in this analysis are given in Appendix 5. All that needs to be noted here is that a scale is a variable which is derived from a number of related questions. A boy's score on the scale is obtained as an aggregate of his answers to the individual questions; high scorers tend to answer all the questions in a 'positive direction': low scorers tend to answer all the questions 'negatively'. As a simple example we can take the scale 'Anticipation of adulthood' (Scale 5, Appendix 5) which was constructed from the questions shown below as follows. Which of these things have you done or thought of doing:

C.13 Go out drinking beer or spirits with a friend?

C.17 Drive a car? C.18 Go to coffee bars?

C.19 Go to a public dance hall? C.21 Read a forbidden book?

C.22 Stay out late with a group of older boys and girls?

A score of 1 was given to a boy for each of the items to which he responded: 'I have actually done this', and his total score was obtained as an aggregate of his scores on the individual items. Thus a boy with the maximum score 6 was one who had participated in all the activities in the scale, and a boy with the minimum score 0 had not participated in any of them. The scales used in the analysis are reported here in two ways. Where we wish to show the strength of the relationship between a scale and another variable by means of a correlation coefficient, the coefficient is calculated from the full range of scores on the scale as shown in Appendix 5. On the other hand, when a scale appears in a table of percentages, it is generally dichotomised so that it divides the total sample of boys into two groups that are approximately equal. This simply means that all scores on the scale have been condensed into two groups - high scores and low scores - and approximately 50% of the total sample of boys fall into each category. In Appendix 5 the distribution of the total sample of boys across the full range of each scale is shown, and the point at which each scale was dichotomised is also indicated. In tables of percentages the two halves of the scoring range are always indicated as follows:

High scores are designated +

Low scores are designated -

For the scale anticipation of adulthood the dividing line between had low scores (or median) was between 1 and 2, which separated the top 51% of the boys from the bottom 49%, anticipation of adulthood - describes the group of boys (51% of the total sample) who scored 2 or more on the anticipation of adulthood scales, and anticipation of adulthood - describes the group of boys (48% of the total sample) who scored 1 or 0.

Other variables derived from single questions are similarly dichotomised when they appear in tables of percentages. Thus the variable 'number of friends who smoke' is condensed into 'half or more of friends smoke' and 'only a few or none of friends smoke'; and only one of the two new categories is shown in the table. Although by dichotomising variables we undoubtedly restrict their discriminating power (for example we cannot examine extreme groups such as the 20% of the total sample who score 4, 5 and 6 on the anticipation of adulthood scale, or the group of boys all of whose friends smoke), because of its simplicity the dichotomised variable has many advantages. We may look upon each dichotomised variable as showing the presence or absence of an attribute. And various sub-samples of the total sample can be compared in terms of the attributes they possess. For example, 87% of smokers had the attribute half or more of friends smoke in comparison with 49% of triers and 18% of non-smokers. Or looking at it the other way, 13% of smokers did not have the attribute in comparison with 51% of triers and 87% of non-smokers.

The scales which were used in the analysis are shown below. In each case the name given to the scale is given and a full range of scores it contains. Below the name the answer categories making up a positive score are shown and the point

at which the scale was dichotomised between high and low scores. The number accompanying each scale identifies it in Appendix 5.

Social influences

Parents' permissiveness towards smoking (0-4) Scale 2.

Parents are not stricter than teachers about smoking. Is sometimes given cigarettes by older brother or sister. Parents are not very strict about smoking. Is sometimes given digarette by parents. (High score + = 1 or more)

Extent of social pressure to smoke (0-5) Scale 8.

Agrees that others often try to encourage smoking and most of the boys in class amoke now and again. All best friends smoke sometimes. Agrees that if don't smoke other boys make fun of you. Agrees that in class there is a special little group of boys who smoke secretly. (High score + = 3 or more)

Personal Characteristics Anticipation of Adulthood (0-6) Scale 5.

Has gone out drinking with friends. Has driven a cur. Has been to coffee bars. Has been to a public dance hall. Has read a forbidden book. Has stayed out late with a group of older boys or girls. (High score + = 2 or more)

Desire for adulthood and Independence (0-5) Scale 3.

I am getting very fed up with school (agrees). I want to grow up as quickly as possible (agrees). Adults never understand us (agrees). I am quite happy to be at school and not yet grown up, (disagrees). I very much want to start earning some money soon (agrees). (High score + 3 or more)

Rebelliousness (0-5) Scale 10.

Has refused to obey. Has lost temper when asked to run an errand. Has argued back at a teacher. Has not produced standard of school work that is capable of. Has refused to obey the prefects. (High score + - 2 or more)

Delinquency (0-5) Scale 11.

Has made fun of a policeman or has thought of doing so. Has been involved in fight or has thought of doing so. Has broken a window or has thought of doing so. Has gone around with a tough gang or has thought of doing so. Has broken into a building or has thought of doing so. Has stolen something or has thought of doing so. (High score + = 3 or more)

Feelings of Inferiority (0-3) Scale 7.

Feels that can't keep up with others (often or sometimes). Cannot do school work as well as most others (often or sometimes). Feels that most things are too difficult (often or sometimes). (High score + = 3)

Frustration (0-6) Scale 9.

Often or sometimes happens that does not have enough money. Often or sometimes feels that don't have enough money. Often or sometimes cannot obtain sweets when wanted. Often or sometimes do not know what to do. Often or

sometimes feel that parents don't understand. Often or sometimes feel that there are too many rules and regulations. Often or sometimes gets punished at school. (High score \star = 5 or 8)

Tension (0-7) Scale 13.

Often feels that nerves are on edge. Often suffers from an upset stomach. Often has headaches. Often wants to scream. Shivers sometimes, even in warm weather. Feels that wants to chew or suck something most of the time. Finds difficulty in relaxing. (fligh score + 2 or more)

Belief in Praishment (0-3) Scale 12.

Agrees that boy who plays truant from school should be severely punished. Agrees that a boy who tells the teacher a lie to keep out of trouble should be severely punished. Agrees that a boy who copies from someons else in a school test should be severely punished. (Righ store = 3)

Beliefs about smoking and attitudes towards smoking Belief in independence of smokers (0-7) Scale 4.

Agrees that boy sw bo smoke are sore adventurous. Agrees that boys who smoke can look after themselves. Does set agree the possible to be tough and independent without smoking. Agrees that yet is possible to be tough and independent without smoking. Agrees that yet is possible to the five show the other boys that you can smake. Diagrees that yet is proven up as they think. Agrees that smoking is a very manly think to do, and if you don't smoke you will never be a man. (figh acrost = -2 or more)

Belief in sexual attractiveness of smokers (0-4) Scale 6.

Thinks that girls who smoke go out with boys more often, and that boys who smoke go out with girls more often. Agrees that girls like to see a boy smoking a cigarette and thinks that if a girl smokes a cigarette she probably kisses boys too. (tight over e * * 3 or 4)

Belief that smoking relieves tension (0-4) Scale 14.

Agrees that smoking makes you feel on top of the world and helps to make you feel more at case in a group. Agrees that smoking makes you feel generally ember at case, and that smoking can help people when they feel nervous or embarransed. High score + 2 or more)

Belief that smoking is not dangerous to children (0-3) Scale 16

Agrees that smoking is only dangerous to older people. Agrees that smoking is only dangerous if you have been smoking for years, and that smoking is only dangerous if you smoke a lot. (Hirth score + = 2 or 3)

Extent of belief that anti-smoking campaign is ineffective (0-5) Scale 19.

Believes that children make up their own minds about smoking whatever the advertisements say. Believes the advertisements are not good enough to make children slop smoking. Believes that children don't take any notice of advertisements. Believes that tellige children not to smoke make them smoke all the source. (fligh score *=4 or 5)

Denial of getting lung cancer (0-6) Scale 22,

Is not put off smoking by the danger of lung cancer because doesn't worry about the delivers that non-smokers get lung cancer. Believes that very few smokers get lung cancer. Believes that of you are going to get lung cancer smoking won't make any difference. Thinks it has not been proved that smoking cancer smoking cancer smoking cancer smoking cancers.

Extent to which smoking can affect general health (0-4) Scale 18. Believes that smoking can weaken you and damage your mouth and throat. Believes also that it can damage your teeth and give you bad breath. (High score + = 3 or 4)

Worry about adult smoking (0-4) Scale 1.

Believes that people who smake are trapped and can never give it up. Is upset to see how helpless grown ups are when they try to give up smoking. Cannot understand why grown ups smoke so much. Is worried to see that so many grown ups cannot stop smoking. (High score + = 3 or 4)

Opposition to dissunders (0-4) Scale 15. Agrees that if parents and teachers smoke themselves they should not try to stop children from smoking. Agrees that it is all right for young people to smoke stop eminren from amounting. Ogices they all and sign for young people to because they don't get cancer. Thinks people try to prevent smoking because they are bossy and noney. Agrees that punishing children for smoking is uscless. (High score + = 2 or more)

Disapproval of smoking (0-6) Scale 17.

Agrees that smoking is a dirty habit. Agrees that smoking is bad for you. Disagrees that smoking is very enjoyable. Disagrees that there is nothing wrong with smoking. Agrees that all cigarette machines should be taken away. Agrees that boys who are caught smoking should be punished more than they are. (High score + = 5 or 6)

5.2 Relation between the variables and smoking experience. age and type of school attended.

Tables 5.1, 5.2 and 5.3 show how each of the scales and other variables were related to smoking experience, age and type of school attended. Table 5.1 contains variables which can be described as 'social influences', i.e. scales measuring parents' permissiveness and social pressure to smoke, and other characteristics of the boys' home background, educational career and friends' smoking habits which were shown in Part I (Chapter 4) to be related to smoking experience.

Table 5.2 contains variables measuring the boys' personal characteristics. These include the scales 'anticipation of adulthood', 'desire for adulthood and independence', 'rebelliousness'. 'delinquency', 'feelings of inferiority', 'frustration', 'tension' and 'belief in pumishment', together with the leisure interests and other characteristics such as pocket money, which were shown in Part I (chapter 4) to be associated with smoking experience. Table 5.3 contains a number of scales measuring beliefs about smokers, and attitudes towards smoking and the anti-smoking campaign. They summarise some of the questions about smoking and health reported in Part I (chapter 3) and also measure attitudes towards the benefits to be obtained from smoking and to its unattractive characteristics.

In each of the three tables only the positive attribute measured by each scale or other variable is shown. The tables show the proportions of non-smokers, triers and smokers who had each

of these attributes, i.e. they show the proportions of those groups who received high score; on the scales or other arriables. To the right of the table three columns of correlation coefficients are shown. These were extracted from the full conflicted that the shown. These were extracted from the full variables in third, (appendix 6) which shows how all the main variables in third, (appendix 6) which shows how all the main variables in the size of the shown of the sho

Tables showing the relationship between the variables and these last two characteristics in terms of percentages are shown in Appendix 8. Tables Asl. 1, Asl. 3 and Asl. 5 show the changes in the proportions of boys who had high scores on the variables across the four school years, and Tables Asl. 2, B.48 and Asl. 6 show differences between boys at secondary modern schools, grammar schools and comorebensive schools.

5.2 (a) Social Influences

Table 5.1 puts into perspective those conclusions about social milenence pat forward in Part [Ichipper 4.) It can be sent that anothing experience is most strongly related to three features anothing experience is most strongly related to three features and appearance of the presence of one or two older stabilings who emissive attitude township that the presence parents. Of the influences operating outside the boy's home, parents, or presence to smoke and friends' smoking seem to be of major the presence to smoke and friends' smoking seem to be of major that the presence of the presence of the presence of the first three presences of the presence of the presence of the presence of major three presences of the presence of the original path and pay relation to most first presence of the present of the presence of the pres

The correlation coefficients in the table show that most of the characteristics which were related to smoking were also related to age. Thus older been proposed to the proposed control to the proposed control to age. Thus older been control to the proposed control to age and the proposed control to the co

As might be expected attendance at a grammar school had its major associations with educational attainment. But it was

		Smok	ing experb	ence	۰	torrelations	٠
See	al Influence	Non- Smokers	Triers	Strokers	Fia.	Yes	res
	2 or more older siblings (item 20)	255	315	40%	,11	04	- ,16
	One or more older #fb= lings who smoke (tern 23)	245	445	57%	,22	/8	16
	Doth parents smoke (seen 21)	195	825	89%	.06	02	-,29
	Purents would not purish boy for smaking ûten 24)	28%	31%	19%	,23	,23	,00
HOME	Cigarettes often left ground house (hem 28)	315	425	41%	,13	.10	-,01
	percela! permandat- ness (seconds amoking + (Scale 2)	36%	475	16%	.m	,31	-,07
	Betieves family is working class (tern 15)	53%	35%	465	93,	93,	10
	Father's social class 3, 4 and 5 (manual) (item 31)	005	455	70%	.01	-,02	-,35
PRIENDS	extent of social pressure to smoke + theate to	36%	96%	69%	.20	,21	-20
FRIENCE	Half or more of friends smoke (Rem 25)	165	495	81%	.50	.31	10
	Vecabulary score in botton 80% for age group litem 93	495	555	095	.14	.12	-20
EDUCATIONAL CAREER	Academic ability below average or dall (tiers 78)	30%	26%	41%	.00	-,01	-,45
	Not in top 10 of form (item 38)	50%	815	84%	.06	06	-,m
	Weighted basics	3230	1835	1038			
		(1005)	(1005)	(100%)	1		

⁼ Product moment correlation between item and smoking experience (item 76) * f 50

also fairly strongly correlated (negatively) with social pressure to smoke. Boys at grammar schools were likely to feel that they were under less pressure to smoke than those at other types of school and they were slightly less likely to have most of their friends smoking. Of the home background variables only 'father's social class' had a fairly large correlation with grammar school attendance and 'number of older brothers and

⁼ Product moment correlation between item and age (item 29) TAge

Product moment correlation between item and grammar school attendance (item 85)

sisters' and 'older brothers and sisters smoking' were also moderately associated negatively with attenduce at grammar school. B is notable that one of the variables having the largest correlations with smoking experience, parents' premissioness, or an armonic properties of grammar school boys were likely to be no latended. Parents of grammar school boys were likely to be no latended about smoking than the parents of boys at other types of school. They were similarly no less likely to leave claractics around earliers, and the contraction of the parents of the silvely is made them.

5.2 (b) Personal Characteristics

Table 5.2 extends the conclusions put forward in Part I (chapter 4) about the type of boy who takes up smoking. Smokers seemed to be attracted to a kind of social life which was of little interest to non-smokers. They liked mixing with girls and were impatient to grow up, and seemed to be anticipating adulthood in many of their leisure activities. Although these characteristics were correlated with age their correlation with smoking experience was higher. This suggests that these leisure activities become more generally popular as boys get older, but the smokers are well ahead of the others in wanting to take part in them. Other characteristics of the boys which had high correlations with smoking experience had even higher correlations with age. Wanting to buy clothes and pocket money both came into this category, which suggests that they are of less importance than the others we have mentioned in distinguishing smokers from non-smokers.

The picture of the boy smoker is further enlarged by the behalvour scales grouped together, approxedily measures in behalvour scales grouped together approxed in their dealings with authority at lones and the result of the state of the delinquent tendencies. They were also less 'puniture' than non-smokers. On the other hand, against capacition, there are supported to the state of the state of the state of the forest of the state of the state of the state of the state tion, 'feelings of inferiority' and 'tension' though all positively related to it than were the state over men lies as strongly

None of the characteristics in Table 5.2 had strong associations with the type of action attended. The small negative correlation between most of them and attendance at a grammar school, suggests that in the grammar school here is slightly less interest in the islessor activities associated with growing up, thus there in the interest of the school here is slightly less interest in the islessor activities associated with growing up, thus there have been school to be a strength of the school here is the school here.

		Smik	lag espect	1000	0:	erelations	•
Peyson	d Characteristic	Non- Smokers	Triers	Smokers	r _{is}	r _{ar}	ru
	Going out with girls one of three most preferred artistics (item 61)	20%	195	615	.37	.25	26
	Goes out mostly with a girl friend or group of boys and girls (Hem. 77)	15%	23%	475	,35	.20	-,05
ESSUE MIERESTS	Has been to the Chosna during the last two weeks (stem 34)	46%	105	66%	20	,00	09
	Would like to buy clothen if had the money (term 82)	59%	675	625	.16	.24	-,03
	Plays for form or achoni sports team (tem 79)	415	41%	49%	.09	.10	.06
	Has a paid job outside school hours (item 19)	265	40%	57%	.24	.19	09
FINANCES	Has six shillings or more a week pocket money (item 37)	40%	54%	145	.33	.41	-,06
	Does not save money reg- ularly each week litem 36	12%	19%	29%	.14	,05	-13
	onticipation of ashittional + (Scale 6)	185	56%	675	,51	.24	06
	destre for schillhood + Scale 3)	30%	465	625	.23	.00	-,12
	resellioumens + (Seals 10)	445	10%	145	.30	.37	00
PERSONALITY	delingumcy + (Scale 11)	285	65%	82%	,33	,12	13
	feelings of suferiority + (Senie 7)	37%	44%	475	.11	-,09	07
	/varirumon + (Scale 9)	45%	145	65%	.14	.03	.01
	feermon + (Scale 13)	505	64%	695	.04	-,09	-,94
	belief in punishment . (Scale 12)	46%	35%	245	-,81	16	.01
	Weighted bases	3230	1896	1036			
		(100%)	(1995	(100%)			

⁼ Product moment correlation between item and smoking experience (item 76) - Product moment correlation between item and age (item 29)

also tended to be less delinquent and to have less desire to grow up, in most of their personal characteristics they were little different from boys at other types of school. It seems that the personal characteristics which distinguish smokers from non-smokers are much the same in all types of

TARR

⁼ Product moment correlation between item and grammar school attendance (item 85)

school. In each type of school there are boys who are impatient to grow up and one of the ways in which this feeling is expressed is by smoking.

5.2 (c) Beliefs about smoking and attitudes towards it

Smoking experience was strongly associated with favourable attitudes to smoking, and with the refusal to be put off smoking by its attendant dangers. Although smokers did not differ from non-smokers in their attitudes to the effectiveness of the antismoking campaign, they did differ from them in being less

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7.11	efs and Attender	Smol	king exper	imce			ut*
met.	ets and Although	Mon- Smokers	Triers	Smokers	r,,	Page	r _{ii}
BELIEFABOUT	belief in the independence of anothers + (licate 4)	45%	53%	115	.21	04	-2
EMOKERS	Belief in the terms! attractiveness of smokers + (Basic II)	395	445	495	.00	-,00	0
	being that anchog relieves tension + (Scale 16)	39%	63%	10%	.24	.16	.0
	beloef that socious is not designed to children + (Scate 14)	455	66%	445	-58	-,04	-,17
MELIEPS ABOUT MOKING	below that suit - twoking companys is instructive + (Bobbe 19)	43%	405	495	,03	,03	00
	Betieves could get long caseer from smoking (stem 80)	10%	76%	185	-,11	00	.00
	extest to mboch anaktur con offect general health + Beate 18)	20%	89%	325	25	04	-,03
	morry about salvit swohing + (Beale 1)	97%	44%	285	-,27	18	-,03
TTITUDES	epposition to dissusders = (Scale 15)	885	415	695	.22	.18	09
O SMOKING	Disapproval of mushing + (Scale 17)	50%	35%	45.	54	25	.01
	Not put off sweeting by the danger of Long Canter (item 25)	185	35%	885	,23	.18	01
	Weighted bases	3230	1.898	1038			
		(1000)	Armen .	Armen .			

^{*} r_{Sn} = Product moment correlation between item and smoking experience (item 76)

r Ace = Product moment correlation between item and age (item 29)

r on = Product moment correlation between item and grammar school attendance (item 85)

worried about subtit smoking, in disapproving of smoking less, and scarting less about the health risk is amoking. Smokers also saw more attractions in smoking than non-smokers; they believed that it relieved tension, and that boys who smoke are more independent than those who dort. But it should be precieved characters are smoken to the control of the control of

include the social influence variables and personal charactering arathles the attitude variables were not strongly associated
with sign. It was particularly notable that beilef in the health
what heart in smoking did not change much as the boys got older.
The attitudes which did above an assession which were concounded to be held more widely as the boys got
older and disapproval of smoking declined. Other boys were also
client and disapproval of smoking declined. Other boys were also
of them were put off smoking by
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These were fer strong associations between beliefs and attitudes forwards smoking and the type of school attended. Boys attending grammar schools had no greater tendency to accept attending grammar schools had no greater tendency to accept attending from the school of the school of

5.3 The Discriminant Analysis

The size of the correlation between each of the variables and smoking open-cone gives some indication of how important in order to believe the first control of the control

condition, we carried out a discriminant analysis. This statistical technique provides a means of answering the question: "Given two groups of informants - smokers and non-smokers how can we best combine the variables on which they both have scores into a composite variable (a discriminant function) so that the difference in the mean scores obtained by the two groups on the composite variable is maximised?" (see Appendix 7 for more details of the method of discriminant analysis). The answer to this question is given in terms of weights which need to be applied to the variables if the combined set is going to give the best discrimination. The results of a discriminant analysis can be interpreted for our purposes in a number of ways. First the size of the weights after an adjustment - see Appendix 7 - can show the relative importance of each variable in discriminating between smokers and non-smokers. Secondly, we can find out whether the smokers and non-smokers are significantly different (in a statistical sense) from each other in terms of the variables. Thirdly, we can discover how adequately the variables taken together can 'explain' the difference between the smokers and non-smokers. Fourthly, we can find out whether other members of the sample not included in the analysis are more like smokers or non-smokers. This last use of the analysis gives us the opportunity to see how far the intermediate 'triers' group have moved towards smoking. Are they to all intents and purposes the same as smokers or do they share more in common with non-smokers?

The discriminant analysis was carried out in a series of stages, of which it is hoped to give the full details in a later paper. We can briefly summarise them as follows.

First, on the basis of their correlations with moding experience we selected 21 variables for a prolitinary analysis. The main criterion employed for selecting the wirthings was that they should either have a high correlation with smodding experience or that they should be relatively independent of other variables; but it was also important that they should antecede smoking experience rather than stem from it. Accordingly certain stituted variables having high correlations with smoking creation stituted with a substantial state of the state of t

The 21 variables which were selected for the first analysis, are shown below.

SOCIAL INFLUENCES

Number of older siblings who smoke (23).

Extent to which eigarettes left around the house (26).

Parents' permissiveness towards smoking (2).

Believes family is working class (35),

Vocabulary Score (93).

Extent of Social pressure to smoke (8)

Number of friends who smoke (25)

PERSONAL CHARACTERISTICS Likes going out with girls (81).

Mixed group social life (77). Frequency of cinema going (34). Does a paid job (39).

Pocket money (37).

Anticipation of adulthood (5).

Desire for adulthood and independence (3).

Rebelliousness (10).

Delinquency (11).

Prustration (9).

Tension (13).

BELIEFS AND ATTITUDES

Worry about adult smoking (1).

Not put off smoking by the danger of lung cancer (28).

In order to hold constant the effects of age and the type of section altended, the preliminary analysis was carried using separately for the boys in each of the four school years within each of the three types of school. The twelve analyses the carried pointed to the same eight we there are the contract of the pointed to the same eight was molocre and non-smokers. These were 'number of friends who smoke? [35]: whether put off smoking by the danger of lung cancer [36]: safetypeting and contract of the contract of the contract of the contract of the smoking of the contract permit permit and the contract of the smoking of the contract permit permit and the contract of the smoking of the contract permit permit and the contract of the action of the contract of

It is notable that several variables which had high correlations with smoking experience to not appear in this list. Probedom services, social presence to not appear in this list. Probedom services, social present services and deligency or adulthood and from it, which suggests either that their influence on smoking to the variables, or that controlling age and type of school attorded largely elimitates their associated with the smoking experience. The absence of reference is a smoking experience of the smoking experience and the smoking experie

of adulthood (Appendix 6). The fact that this latter variable is given prominence by the discriminant analysis shows that participation in the leigure activities of older teenagers is more important than rebellious or delinquent tendencies in predisposing a boy to smoke.

Sub-sets of the best eight variables were included in three final analyses, which were again carried out separately for the boys in each of the four school years within each of the three types of school. It was found that the first four - 'number of friends who smoke', 'whether put off smoking by the fear of lung cancer', anticipation of adulthood, and parents' permissiveness discriminated well between smokers and non-smokers, and that the discrimination was only slightly improved by the inclusion of other variables. Table 5.4 gives a summary of the main results of the discriminant analysis for these four variables (other relevant data are shown in Table A7.1 Appendix 7). The β coefficient shows the relative importance of the four variables in discriminating between smokers and non-smokers. P shows the probability that the discrimination may have occurred by chance. R the multiple correlation coefficient between the discriminant function and smoking experience as a dichotomous variable) shows the extent to which the four variables can 'explain' the difference between smokers and non-smokers.

Table 5.4 The main results of the discriminant analysis

			# Coef	Ticlents			
Type of School	School	rember of freede rracking (25)	danger of tung cancer does not put off (20)	Parents Permissiva- ness (2)	Anticipation of adult- hood (3)	Probability level P	Multiple Correlation R
	1	2:24	1:27	0-65	0-61	< 931	-
Secondary Modern	3	8-31	1-07	1-00	1-02	< 001	-540 -725
MARKETS .	3	2-20	0.00	0-60	1:33	C 001	-760
	4	1-82	0-76	D 99	0.89	C001	1000
	1	2-56	0.95	0.00	1-91	< 901	
Granenar	2	8-12	1-20	0-15	1-51	< 001	-455
	3	2 24	1:71	0:54	1-33	0001	-596
	4	2.71	1-10	D-41	1:72	< 001	-757 829
	1	2-21	9.64	0-24	-0-05		
Decrepehensive	2	1.40	0.73	0-90		< 001	-176
-proprehenative	2	1-22	1.00	0-90	1-02	< 001	630
	4	1:49	0.60	D-66	147	< 901	-739 -160

The first point to note about Table 5.4 is that in every one of the 12 analyses the four variables discriminated significantly between amokers and non-smokers. The value of P was always below .001 which shows that in each analysis the probability of the discrimination occurring by chance is less than 1 in 1000.

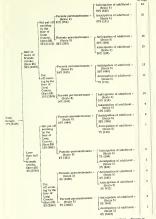
Another point to note is that in all the analyses the variable having the largest level field with the largest level. The second with the influence of a boy's friends is more important beautiful to the influence of a boy's friends is more important some any other in determining whether he takes up morking. None of the other variables had consistently higher if coefficients from a second to the second second to the other three dates and the other best bearents' permits results in all years and the other three of the other three dates are the other three dates and the other three dates are the other three dates and the other three dates are the other three dates and the other three dates are the other three dates and the other three dates are the other three dates and the other three dates are the other three dates and the other three dates are three dates and the other three dates and the other three dates are the other three dates and the other dates are the other dates and the other dates are the other dates and the other dates are the other dates and the other dates and the other dates are the other dates are the other dates are the other dates and the other dates are the other dates a

Finally the size of R increases over the four school years in the obstype of school. This suggests that the extent to which the four variable of explain recruitment to smoking increases with age that the extent of the likelihood of a boy responding to making the control of th

The position of the triere' group in relation to the smokers and me-ambere is shown in Figure 5.1. In this diagram the mean scores on the discriminant function for the smokers group the triere' group and the non-modere's group are shootly years in softiate position between smokers and non-smokers in 12 analyses. In the secondary modern schools and comprehensive schools they were slightly closer to the monositors than the smokers, and the secondary modern schools and comprehensive schools they were slightly closer to the monositors than the smokers, and the secondary notice were almost exacted to the secondary schools and comprehensive schools they were slightly closer to the monosities that the smokers, and the secondary sold the secondary sold to the secondar

We may now take the analysis further by seeing how the four influences acting together will determine the probability of a boy becoming a smoker. The sample was divided into a number of groups defined by whether the boys in them had been subjected to different combinations of the influences. - For this purpose the variables were dichotomised as in Tables 5.1, 5.2 and 5.3. -Figure 5.2 shows the result of splitting the sample in this way. On the left of the diagram we have the total weighted sample of 6, 106 boys, of which 17% were smokers. To the right of it we see the effect of splitting the sample in two groups, in one of which half or more of the boys' friends are smokers, and in the other, less than half. It can be seen that in the former of these two groups 36% of the boys were smokers, and in the latter, 4%. As we move further to the right across the diagram the effect of bringing in each additional influence is shown, until finally we have sixteen groups in which we can see the effect of all possible combinations of the influences. Comparing the two extreme groups, 16 and 1, we find that in the former, which contains boys HOURE 5-1, THE MEAN SCORES OF THEIRS ON THE DISCHWINART PLUCTION COMPARED WITH THE WEAK SCORES OF SHORTES AND NOW-SHORTES

Figure 5.2 Changes in the proportion of boys who are smokers as the sample is split into the groups defined by the discriminant analysis



Note: Percentage figures are the proportions of boys in each group who were amobiers. Pigures in brackots are weighted bases for percentages.

Table 5.5 Proportion of Doys who were fundames in suchaef the 36 Groups Defined by the Educationant Analysis with School Twar within School Type

ž	Secondary Modern	bern					Gentral	20.0							Corre	Comprehensive	2		
'n	Page 1	9	Total	10	H	2	~	3rd	\$		Cetal	1,0	Г	Ä	-	12	405	r	Tetal
685 (82)	40% 0000	115 (171)	1002/200	200	100		3	1		۳		ŀ	٠	ш	_		1	1	
			ĺ					(60)	200 (80)	100	(356)	ŝ		215 (13)	444	(23)	255	980	1027 (83)
135 (35)	155 (15)	225 (20)	405 (74)		E 255	8	443	(III)	365 (11)	365	120	29.7	100	275 66	K11 39%		4400		
(14)	245 (54)	64% (44)	275 (269)	262	100	2 010	152	000	ers ca	201 345	900	417	190	N. W.	-		Ken		100
(11) 50	85 (20)	275 (11)	22% (73)	8	0	20	ř	8	0 211	200		ě			٠.				
(66) 521	265 (101)	40% (112)	20% (254)	100	100		1	1			٠,	;	-	. '	_		200	-	120
02 040	25 (20)	02 70	1				1			<u>.</u>			-		•		325		
								í i				123	8	-			'n	3	(12) (13)
					-	(13)	ii ii	(30)	65 (13)	1135	(62)	10	8	45 0	(6) 20X	(315)	12%	123	1475 (42)
		15 (43)		95 (11)	0	(H)	ţ	020	105 (12)	11) 5%	(62)	ii.	9	45 (6)	200	9)	14%	000	10E CH3
	29% (83)	16% (03)	(223) \$12	95 (7)	93	N (22)	127	(22)	30 50	525	96	ğ	6	07 63	A 2nt		2,70	_	
	55 (03)	15 (22)	85 (108)	95 (36)	35	5 (21)	12	90	0 20	(8) 5%		5	-				8	. 6	1
(23)	83 (31)	02 (40)	25 (322)	11 8	S S	80 8	175	1250	10% (12)	145	(58)	275	180	196 (8)	200		ě	. 6	
(92) 50	(30) 50	05 (11)	(122)	05 (30)	0 213	2 080	ť	ac	100	275							ž	9	
8% (60)	0% (\$7)	163 (86)	75 (280)	25 0.0	8	8	15	90	95 (28)				1	DEC. 1991					
(\$ (319)	200	145 (85)	45.070	05 620		25.00	É	9			The Assessed					٠,		2	
0% (333)	65 (200)	45 (81)	25 (656)				1	1			10000		7				6	190	(60)
	-				_	1000		-		_	(100)		(in)	20		(613	¢	23	13, (14)
(and) try		6	03 (697)	P 25 (25)		55 0220	ď	ê	02 50	96	Control	ř	976	1247 200	1 600	1341	200	100	AND CORES.

half of whose friends smoked, who were not put off smoking by the few of the graner, whose parents were permissive towards their children's smoking, and who were anticipating adulthood in their lessure activities, 70% were smokers; whereas in the latter group where the boys had none of these characteristics, there were no smokers*.

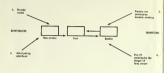
An even greater difference between the two extreme groups is seen when we look at results within school year and school type. Table 5.5 compares the proportions of boys who were smokers in each of the 16 sub-groups of the sample defined by the analysis, across the four school years in each type of school. This table confirms the earlier conclusion that the extent to which the four variables can explain the differences between non-smokers and smokers increases as boys get older. Thus in the fourth year in the secondary modern school 88% of the boys in group 16 were smokers and there were no smokers in groups 1, 5 and 6. In the other types of school the discrimination was not quite as powerful; although in the fourth year of the grammar school none of the boys were smokers in groups 1-5, only 70% in group 16 were smokers. From this we may conclude that although the four variables provide a good explanation of recruitment to smoking, their influence is strongest in the secondary modern school, where most boys who are subjected to them are likely to start to smoke.

5,4 The recruitment model

The results of the discriminant analysis suggest that four major influences are at work, leading boys to take up smoking. This is not to say that the large number of other variables we have considered are of no importance in the study of smoking. Each of them may influence smoking in varying degrees, and as will be shown in the next three chapters, many have an important part to play in anti-smoking strategy; but their main effect may be considered to operate through the 4 variables identified by the discriminant analysis. (See Appendix 7, for a further discussion of this point). It is convenient for our purposes to look upon two of these variables - 'number of friends who smoke' and anticipation of adulthood - as providing reinforcement for the tendency to smoke, and to look upon the other two - parents' permissiveness, and 'whether put off smoking by the danger of lung cancer' - as inhibiting this tendency. On this basis we can put forward a simple model of the process by which boys are recruited to smoking which is shown in Figure 5.3.

On the left of the diagram are those influences (1) and (2) representing the peer group context in which boys who are attracted to a

The data in Figure 5.2 is extracted from table A.7.2, Appendix 7 which shows the proportions of boys who were smokers, triers and non-smokers, in each of the 16 groups defined by the analysis.



particular type of social life are most likely to take up smoking. The boy who associates with other boys who smoke and who goes in for the kind of activities described as anticipation of adulthood is under the strongest pressure to take up smoking. But acting in opposition to this pressure are the two influences on the right of the diagram. One of these (3) represents the attitude parents hold towards their children's smoking. Independently of whether they smoke themselves, those parents who are strongly opposed to their children's smoking and do all they can to discourage it succeed in inhibiting them from taking it up. The other influence (4) similarly inhibits boys from starting to smoke. We may see this influence as representing the way in which the health message of the anti-smoking campaign can affect smoking. Those boys who say they are put off smoking by the danger of lung cancer are less likely to take it up than those who are not put off by this danger.

The model suggests guidelines for future sub-tembling strategy. So far health educators have been primarily concerned with strengthening influence 4 by supplying children with informations about the health risk attacheds to moking. But for exampling to be fully successful it would seem that it should be campaign to be fully successful it would seem that it should be the supportance 3 and weakening in-fluences all the supportance of the triver group becomes apparent. We the importance of the firer group becomes apparent for the position of non-smokers there is a good change that the found of preventing the pressures on them to smoke from increasing,

Influences 1 and 2 ('number of friends who smoke' and audicipation of adulthood) represent the major problem because they are bound up with the social life and personality of the growing boy. It is difficult to affect them directly, yet their importance is considerable, as they provide the means by which

the smoking habit is renewed in each generation. The problem in dealing with these influences is one of changing teenage fashion, i.e. of making smoking no longer a valued activity to the teenage group.

Influence 3 @arents' permissiveness) represents perhaps the most obvious see action point for the anti-smoking campaign. It would seem that a major attempt to enlist the support of parents for the campaign may be one of the best ways of discouraging children frames moking.

Finally the importance of influence 4 ('whether put off smoking by the danger of lung cancer') emphasises the need to continsupplying children with information about the health risk in smoking. But the essential point to note is that ways must be found of combatting the reasons children have for not being put off by the danger of lung cancer even though they may believe that smoking causes it.

Table 5.8, shows how each of the four influences were related to such sides. B is enable that all of them were moderately correlated with each other at the level of 27 or 29, and 1 and 2 were quite strongly related to each other (correlation = 46). This suggests that changing any one influence will also lead changes in the others. Thus it is important from one influence to operate on all four from the property of the control of the contr

Table 5.6 Correlation between the four major influences on smoking

_				Varia	ble	
	Influence		25	5	2	28
1.	Number of friends who smoke	(Item 25)	х	×		
	Anticipation of adulthood Parents' Permissiveness	(Scale 5) (Scale 2)	. 46	,27	х	
4.	Not put off smoking by the danger of Lung Cancer	(Item 28)	.29	.27	.27	х

Besides pointing to the major influences which lead toys to take amounts, the recruitment model also suggests how potential monets might be identified in the achooloty population. By sating the questions from which the four influence variables were derived it would be possible to find out on which loys the pressures to smoke are tringent and under the present the contraction of the present the present the present the present the pretarget for threadiled health education. Teachers might make a special effort to discuss with them the health risks associated with smoking, and the attempt might be made to involve their parents more actively in the anti-smoking campaign.

In this chapter we have been primarily concerned with those pressures on a boy which may lead him to become a smoker. But our recruitment model also points to the pressures which prevent boys from giving up smoking, once they have started. Thile 5.7 shows how the pressure of each of the four major influences on emotions of the started of the four major influences on emotions of the started of the started of the started of the started of the smokes.

Table 5.7 The four major influences on smoking analysed by amount smoked

	Cigar	ettes smoked	a week
Influence	1-9	10-19	20+
(1) Number of friends who smoke (2	5) 85%	86%	929
(2) Anticipation of adulthood (scale)	3) 80%	93%	949
(3) Parents' permissiveness (scale	2) 68%	79%	87%
(4) Not put off smoking by the dange lung cancer (28)	r of 65%	75%	859
Weighted bases*	478	247	317

^{*} All smokers

The table shows that as the amount the boys smoked increased, the more likely they were to be subjected to the four influences. Over 80% of the heariest amokers were orbutoff smoking by the danger of lung cancer, and had practise who were permission towards their smoking; over 80% were anticipating adulthood in the same of the subject of the same of the subject of the same of the subject of the same of the same

In the final three chapters we shall draw together all the data which suggest how these aims might be achieved. First we shall consider the role that smoking plays in the value structure of the teenage group with a view to finding ways in which its status as an attractive activity can be reduced. In the following chapter we shall consider further the role that parests may play in the the belief that smoking causes lung cancer effective in putting boyo off smoking.

6. THE ATTRACTIONS OF SMOKING

6.1 Social life and pressures to smoke

It was shown in the previous chapter that the most important influence on a boy's tendency to smoke comes from his group of friends. Boys whose friends smoke tend to smoke themselves. and those who mix with boys who do not smoke tend to be nonsmokers. The number of the boys' friends who smoked and their scores on the anticipation of adulthood scale were correlated '45 with each other which shows that those groups of boys in which smoking was the norm also tended to have gone in for certain types of leisure activity (i.e. they had gone out drinking with friends, had been to coffee bars and dance halls, had stayed out late with a group of older boys and girls, had read a forbidden book, and had driven a car). Table 6.1 shows further that the leisure activities which appealed above all others to these groups of boys were those which were bound up with the social life of older teenagers. The table compares the proportions of boys attracted to different leisure activities who smoked themselves,

Table 6.1 Whether amokes sow, prevalence of smeking among friends, and anticipation of adulthood analysed by leisure activities

Table 6.1 Whether an and anticip liked most	ation of adu	lthood anal	ysed by leisu	re activiti	108
Leisure Activity (Q. 6, Book I)	Smokes Now. (Item 76)	Half or more of friends smoke. (Rem 25)	Anticipation of Adulthood + (Scale 5)	Weighted	Bases
Going to Coffee Bars	54%	71%	85%	255	(100%)
Going dancing	45%	63%	87%	362	(100%)
Going out with girls	35%	58%	79%	2063	(100%)
Going to Youth Clubs	30%	56%	72%	923	(100%)
Chatting to a group of friends	21%	44%	63%	688	(100%)
Going to Pictures	21%	43%	55%	1918	(100%)
Sports and Games	14%	35%	51%	3224	(100%)
Cycling with a group of boys	12%	34%	50%	1560	(100%)
Gardening or care of pets	8%	31%	44%	939	(100%)
Watching T. V. or listening to the radio	11%	33%	43%	2767	(100%)
Woodwork and making models and other things	10%	30%	41%	1901	(100%
Reading, writing or drawing	5%	24%	36%	1669	(100%
TOTAL SAMPLE	17%	39%	53%	6104	(100%

Note: Figures for each activity give the proportions of boys who selected it as one of the three things they liked doing most.

whose friends smoked, and who had high scores on the anticipation of adultinod scale.

Among boys who were attracted to coffee hers, dancing and going out with girls, although tarely half were smokers themselves, 115 were members of groups in which smoking was the norm, andower 60% were high sources on the smitching of adultions of the second of the sec

It seems reasonable to assume that the reason boys who are attracted to the social life of older teenagers go in for sandring is because it imparts some status to them in the eyes of their friends. What is not odvirous is why it should be valued by these boys, and exactly what kind of status it gives the smoker. We proceed to the state of the state of the state of the state of the proceed's smoking. We have the state of the state of the state ing which is attractive to school boys, and was, if anything, is unitractive about 1900.

6.2 The perception of smoking*

We twestigated the attractions that smoking holds for boys by analysing their images of four types of boy among their contemporaries. These were: the kind of boy who smokes cigareties (the smoker), 'the kind of boy who does not smoke cigareties (the non-smoker), the kind of boy they think they themselves are' (the sell), and 'the kind of boy they think they would like to be ('the ideal sell').

The boys were asked to rate these four types of boy on 19 three-point scales, each of which consisted of two opposite attributes such as 'good at school work'...' not good at school work' and an extract category in between. (The full set of scales appears in Questionnaires Book ID, Book ID, Book IDC and appears in Questionnaires Book ID, Book IDC and the consistency of the control of the contr

A fuller account of this analysis is being published elsewhere McKennell and Bynner (1969).

^{**} The factor solution was obtained by the Promax method, Hendrickson and White (1964).

Table 6, 2 The Basic Dimensions of Boys' Images

Andre -, - In-	
Factor 1. Educational Success	Factor*
Negative attribute Pauline all relate and relate at 11 foreity. Dear and Clean 11 foreity. The Secretary Comment of the S	. 83 . 82 . 81 . 78 . 78 . 77 . 73 . 72 . 67 . 65 . 53
Pactor 2. Toughants Negative difficient Plansifier difficient [1] A bit of a classy	.84 .17 .60 .40
Pactor 3, Precedity Negative attribute 2. Not interested in girls 3. Does not try to attract girls 3. Trees to attract girls 3. Trees to attract girls 4. Trees to attract girls 5. Does not try to attract girls 5. Trees to attract girls 5. Does not try to attract girls 6. What to be grown up 7. Spons of a wear 7. Likes to be almo 6. Likes to be with a group	.89 .85 .32 .29 .29 .27

- * The numbers identify the scales in the questionnaires (Appendix 3)
- *** Factor loadings are measures of the association between the scales and the factors.

 *** All loadings above 20 are included in the table. Certain scales appear twice in the table because they had loadings of more than 20 on more than one factor.

considered to be rating the four types of boy in terms of only three basic dimensions. In other words the 'images' they held of the four types of boy comprised only three major features.

Table 6.2 gives factor loadings which show how each of the 19 acutes were related to each of the three factors. Those scales are supported to the strongest and the strongest and each state of the strongest and each state which had the strongest and each state which the factor and were therefore used to define A. Factor 1 was called "Educational Success" because it sufficient to which comentional school must be suffered to the content to which comentional school must be suffered to the state of the state of

2 was not so difficult to define; though moderately associated with sociability (likes to be with a group, has many friends) it was more strongly linked to tongeness and the ability to fight, and was therefore called Tongeness to the solicity to fight, and "Precocket' because it represented the solicity enement of a type of maturity which is not desired by my sin this age-group (i.e., it signified interest in girls and a desire to attract them together with waring to grow up.)

Scores for each of the four images ('the smoker,' 'the nonsmoker,' the self' and 'the teal self') on each of these factors were obtained as weighted sums of the bordings on the original 19 scales.' A boy's image of, for example, or could thus be described in terms of three scores — an Educational Success score, a no 2 pre-cectiv score.

In order to find out which of the factors represented attractive aspects of smoking, and which of them represented unattractive aspects of it, we compared the scores given to 'the ideal self' on each factor with the scores given to 'the self', 'the smoker' and 'the non-smoker'. The assumption was made that if a boy's image of his 'ideal self' corresponded to his image of 'the smoker' with respect to a particular factor then this factor represented an attractive characteristic of smoking, and he was being tempted to smoke because of it. Similarly any characteristic which was shared by his image of the non-smoker and his ideal self was presumably putting him off smoking. The difference between his 'self' score and his 'ideal self' score on each factor was taken to show the strength of his motivation to change his image in the direction of acquiring or losing the characteristic represented by the factor. So that we could find out whether the attractiveness of a particular characteristic for a boy depended on his smoking experience comparisons between the images were made for nonsmokers, triers and smokers separately in each of the four school vears.

The three factors were not completely independent of each other. Bottenional Success had correlations with Toughness of -24 and with Precocity of -37. Toughness and 24 and with Precocity of -37. Toughness and considered of -40. This shows that if the score of an image changes with respect to one factor it will also tend to change with respect to the others. For example if a boy rates his image of the smoker high on the Toughness dimension and then, because of some outside influence, comes to believe that he smoker is of some outside influence, comes to believe that he smoker is when the smoker is the state of the smoker is the smoker in the smoker is the smoker in the smoker is the smoker in the smoker in the smoker is the smoker in the smoker in the smoker in the smoker is the smoker in the smoker in the smoker in the smoker in the smoker is the smoker in the smoker in

^{*} These scores were standardised so that, averaged across the four images for the total sample, they had mean values equal to 0 and variances equal to 1. The weights used to compute the unstandardised scores are shown in Appendix 5 (items 64 to 75)

In presenting our findings we shall be making comparisons between the images held by different groups of boys in terms of mean scores on the three factors. Each of the factors will be considered in turn.

6.2a Educational Success

Figure 5.1 illustrates the relationship between the four images on the constant and Sterens dimension. Reading from left to right has deceased the second. Reading from left to right has high second (Reductional Sterens). Reading from the top to the bottom of the page, we see the images had by which the self with the self with the set of the second second to the second se

The second point to note about these diagrams is the relative positions of the self and the ideal self. Back proup of boys clearly valued Educational Success because they give hear their 'ideal self'. Alph secone on the yould have liked to be more successful than they felt they were at present. It is clear that monkers set their sights slightly lower than now. It is successful than they felt they were at present. It is clear that monkers set their sights slightly lower than now they did not be successful than apparent sandors.

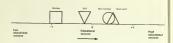
These findings are ather surprising because they suggest that far from rejecting conventional school values most tows, including an experiment of the control of the contro

6.2b Toughness

In complete contrast to Educational Success, Toughness is a dimension which represents an attractive aspect of smoking to most boys. As can be seen from their placing of the 'ideal selt' in Figure 6.2, all three groups of boys valued Toughness even

FIGURE 6 1. IMAGES IN TERMS OF EDUCATIONAL SUCCESS.

larges held by seckers in terms of educational success



Images held by triers in terms of educational success.



lenges held by non-smokers in terms of educational success.





V

A - ideal self

though, particularly in the case of son-smolters, they felt they had a long way to go in reds to achieve it. They all thought that the typical son the state that they then so the state that they then so the state that they have a state of the son that the typical non-smoker law that they are the state of the smoker' was the level they would have liked to have achieved for themselves.

The major difference between the three groups exists in the placing of 'the self'. Boys who smoked thought of themselves as being fairly tough, but not as tough as they would really have liked to be. They, more than any other group, saw non-smokers as completely lacking Toughness, and thus the act of giving up smoking involved identification with a group which had a very unattractive characteristic. For triers the situation was modified, but only slightly. They still valued Toughness, but in comparison with smokers they felt that they had further to go in order to achieve it. Non-smokers differed from triers in seeing themselves as being even less tough - about as tough in fact as the typical non-smoker - but like triers they also valued the Toughness which they thought had been achieved by the typical smoker. In their case, however, although they wanted to be tougher than they were at present they did not want to be quite as tough as the typical smoker. It looks as though they felt that smokers had gone a little too far in trying to achieve Toughness. A further aspect of the Toughness dimension is revealed by

A further aspect on the Touganess cumensous as evenues, as for the Spigure 5.3. As before this continue three diagrams is used to the spigure for the spigure

It seems that the younger boys would have liked to be tough, and if they smoked or had ever tries conding, they felt that they had achieved a resultant, they felt that they had achieved a resultant tries. But as they got older they we suppose that they are considered to the condition of the con

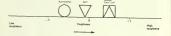
^{*} There were no changes over the four school years in the position of any of the images on the Educational Success Dimension.

FIGURE 8-2. IMAGES IN TERMS OF TOUGHNESS

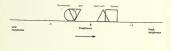
leages held by stokers in terms of toughness

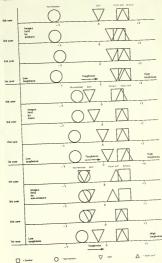


Images held by triers in terms of teighness



images held by non-smokers in terms of taughness





Precocity, like Toughness, also represents an attractive aspect of smoking, but it differs from Toughness in appearing to provide more of an incentive for smokers to continue to smoke than for non-smokers to take up smoking,

As can be seen from Figure 6.4 all three groups of boys tended to think that the typical smoker was much more precocious than the typical non-smoker. They also appeared to be reasonably contented with their own images as far as this dimension was concerned. Smokers identified themselves fairly closely with the typical smoker; boys who had never smoked identified themselves with the typical non-smoker; triers placed themselves mid-way between the typical smoker and the typical non-smoker.

The relative positions of the images on the Precocity dimension for all three groups bore a resemblance to the positions of the images held by non-smokers, on the Toughness dimension. It may be recalled, that although non-smokers appeared to value Toughness they did not want to be quite as tough as the typical smoker. In the case of Precocity this distancing of 'the smoker' from the 'ideal self' is very clearly seen and occurs for all groups. Although this dimension represents the achievement of a certain kind of maturity, it clearly has some negative features even for smokers. The striving of smokers to appear grown-up is clearly disapproved of by many boys.

Further aspects of this general picture are shown in Figure 6.5 where we again examine the variation in the positions of the images as the boys got older. In these diagrams far less stability is revealed than was the case for Toughness. Only the image which each group held of the typical smoker remained in much the same position over the four years.

As non-smokers and triers got older they appeared to value Precocity more: but as their ideal changed so did their image of themselves and of the non-smoker. There was a steady movement of all these images towards the image of the typical smoker, which suggests that the older boys were coming to see this dimension more in terms of a desired maturity than of a precociousness which they did not want to achieve. In spite of the fact that they did not smoke, this kind of maturity became increasingly attractive to them, partly, perhaps, because they thought that the typical non-smoker was now achieving it. Although at no stage did they want to identify themselves completely with the typical smoker, aspects of his behaviour in which they had very little interest in the first year, became acceptable and were. indeed, valued by them, by the time they had reached the fourth vear.

It was the smoker who saw the typical non-smoker as completely lacking the maturity which he valued for himself. Even

FIGURES 6 4. WAGES IN TERMS OF PRECOCITY

Images held by smakers in terms of precocity



Images hold by trees in teens of precocity



tweges held by een-snakers in terms of preciety



FIGURE 6-5. VARIATION IN PRECOCITY WITH SCHOOL YEAR 4th year 3rd year 1st year 4th year 2nd year O - Non-smaler V - seri





A - None and

in the fourth year, boys who snoked still saw the typical nonsmoker as being very immature, whereas they felt that they personally had read they have been seen that they personally had read of the thing that they did not make the still the short still the still the still of the still the still the still the still the still the still personal that the still the still the still the still the still the and would have had much less descript, to identify themselves with the typical non-smoker, which would have been implied by the act of giving up smoking.

6,3 The value of smoking to school boys

From the data we have considered a number of conclusions can be drawn about the attractions smoking holds for schoolbovs. Precocity appears to be the main characteristic of smoking which is valued by smokers but not non-smokers. Unlike Toughness. which can impart status to the smoker in the eyes of most other boys, Precocity gives status to the smoker only among other boys who smoke. We can now see why boys who are attracted to the social life of older teenagers are under such strong pressure to smoke. Their most distinguishing feature is an interest in mixing with the opposite sex and as we have seen from their placing of 'the smoker' and 'the non-smoker' on the Precocity dimension they believe that only smokers succeed in satisfying this interest. On the other hand, the smoker sees himself and is seen by others as lacking the one valued attribute which nonsmokers possess - Educational Success. Although non-smokers do not envy the smoker for his Precocity they do admire his Toughness. Thus the smoker is not only able to impress his friends by appearing precocious (or mature in their eyes), but is also able to compensate in some ways for his poor school performance by impressing the non-smokers with his apparent toughness.

It was shown in Part I (Empire 4) that amoking moperance was moderably supersized with port and easier schiedeness destroyed and that this moderably supersized as the boys got cider. Because there was no corresponding increases in the association between such research was concluded a supersized by the control statistic process and retrial shiftly to be a such as the control of t

But in spite of the smokers' lack of interest in the 'pupil' role' prescribed by the school, the data in this chapter show that most of them do accept school values as defined by Educational Success even though many see themselves as unable to attain these values. There is some evidence that this sense of

failure produces feelings of inferiority and consequently frustration and tension. Table 6,3 shows the correlations between smoking experience, low form position, and the scales of anticitytion of adulthood, desire for adulthood and independence, rebelliousness, delinauency, feelings of inferiority, frustration and tension. All these latter personality characteristics were moderately correlated with one another, and it is notable that one of them - feelings of inferiority - was also moderately correlated with low form position. This suggests that those boys who are not keeping up with their contemporaries at school are experiencing a certain amount of stress. Their feelings of inferiority are associated with a desire for adulthood and independence, and consequently an attraction to, if not participation in, the social life of older teenagers as represented by anticipation of adulthood. If they are also rebelling against authority at school or outside - rebelliousness and delinquency there is an even greater tendency for them to be frustrated and tense. The need to compensate for these feelings gives them a greater incentive than other boys to acquire characteristics which will impress their friends. We noted in Part I (Chapter 4) that some smokers are probably able to compensate for poor school performance by achievement at sports - even though, ironically, smokers are generally thought to be bad at sport and non-smokers are thought to be good at it (see item 3. Image Questionnaires, Appendix 4). It may be the case that some smokers are more physically advanced than the others which may account in part for their rejection of the 'pupil role'. For the others smoking, as a symbol of identification with the values of the teenage world outside the school, provides an obvious means by which they can achieve status in the eyes of other boys,

Table 6.3 Correlations between Personality characteristics and Smoking Experience

Personality characteristics				Variable							
			5	3	10	11	7	9	13	36	76
Anticipation of Adulthood	(Scale	5)	x								_
Desire for adulthood and independence	(Scale	3)	31	x							
Rebelliousness	(Scale	10)	48	29	х						
Delmquency	(Scale	11)	47	28	48	x					
Feelings of inferiority	(Scale	7)	10	25	17	20	x				
Frustration	(Scale	9)	20	33	29	29	40	x			
Tension	(Scale	13)	08	26	16	17	31	29	х		
Form position (low)	(Rem	36)	01	10	05	04	30	06	05	x	
Smoking experience	(Rem	76)	51	23	39	38	11	14	08	06	x

6.4 Anti-smoking strategy

In combination with some of the findings reported in Part I (Chapter 4) the conclusions we have reached in this chapter have a number of implications for anti-smoking strategy. Most obviously it would be valuable if ways could be found of weakening the symbolic meaning of smoking as a means of achieving status in the peer group. The association of smoking with Toughness provides a strong incentive both for non-smokers and triers to take up smoking and for those who smoke to continue to do so. And this incentive becomes stronger as boys get older, even though older non-smokers are not quite so attracted to Toughness as are smokers. Health educators might bear in mind that if the perceived link between Toughness and smoking could be broken one of the main attractions of smoking would be removed. But how is this to be done? The suggestion that smokers are not really tough may be rejected by boys because it contradicts reality as they see it, and, of course, many of the genuinely tough boys are likely to be smokers any way. One possible way of tackling the problem is to try to reinforce the association between smoking and lack of Educational Success. It might be suggested that the smoker's supposed toughness is either a pretence or is more in the nature of a bullying roughness (low Educational Success) than a toughness such as a boxer or soldier has which can genuinely be admired. In addition, more might be made of the fact that in the boys' eyes non-smokers are the best 'all-rounders' at school, and are presumably the ones who they think are most likely to succeed

in adult life. In attempting to weaken the symbolic value of smoking as a means of appearing mature similar considerations apply. Although, except among the oldest boys, the precocity of smokers appears to provide little incentive for non-smokers to take up K smoking, the apparent immaturity of non-smokers inhibits smokers from giving it up. The desire to succeed in attracting girls is one of the main values which unites the smoker with his friends; thus the act of giving up smoking may alienate him from them. As for Toughness, it would seem that one of the best approaches would be to try to weaken the perceived association between Precocity and smoking by reinforcing its link with Educational Success. It might be suggested that smokers are 'big-headed' and 'show-off' (low Educational Success): they boast about their achievements in attracting girls but their supposed maturity is really a pretence. In addition, the data discussed in Part I (Chapter 4) on the leisure interests which appeal to smokers, and the things they would like to buy if they could afford them, provide many pointers to the kind of social life which appeals to smokers, and which they will presumably continue to be attracted to if they are persuaded to give up smoking. The coffee bar, the dance hall, and the youth club, are the kind of places which at present the non-smoker is rarely seen in.

Besides the fact that they are obvious places for directing health education communications (particularly the youth club which has a moderate appeal for non-smokers as well as smokers), it would also appear necessary to persuade smokers that nonsmokers and ex-smokers go to them. Similarly it would be valuable if the tape-recorders, record players and fashionable clothes which appeal to smokers, but which few schoolboys can afford to buy, could also be more closely identified with the non-smoking 'image' rather than the smoking one. The increase in the value non-smokers place on Precocity as they get older suggests that the non-smoker can be fairly represented to other non-smokers, as having the interests and mature attributes which smokers think are exclusively theirs. But there may still be some difficulty in convincing smokers that this is a true picture - that is to say convince them that many nonsmokers are at least as mature as they are. The leader of teenage fashion such as the 'pop' singer would appear to represent the smoker's ideal on the Precocity dimension. The 'pop' singer who is a non-smoker would appear to provide perhaps the most convincing evidence for schoolboy smokers that a boy can be attractive to girls and mature in other ways even if he does not smoke.

7. THE ROLE OF PARENTS

The previous chapter has suggested ways in which the value of smoking as a symbol of status in the teenage group might be distributed by the state of the state o

7.1 The components of parents' permissiveness

It will be recalled that a boy's score on the parents' permissions scale was obtained by combining his responses to a number of related or related return a Table 1.1 shows the proportions of non-time there and smokers who gave the positive response (indicating permissiveness) to each of the questions that formed the scale.

Table 7.1 shows that smokers gave the positive response to each of the premise 'permissionness items much more frequently than non-smokers. As all four of these items were correlated with each other (the criterion for adding them together - see Appendix 5) we can conclude that the same group of amounts at model to come from homes in which to the premission of the control of the premission of the premission of the control of the premission of the premission of the control of the premission of the pre

Table 7.1 Parents permissiveness items analyzed by smoking experience

Item	Response	Non-smoker	Trier	Smoker
My parents are stricter than the teachers about not allowing us to smoke	Disagree	23%	275	43%
(HID34) Sometimes my elder brother or sister gives	Agree	95	185	47%
me a cigarette (HID36) My parents are very strict about not allowing	Disagree	16%	23%	44%
us to smoke (HID38) Sometimes one of my parents gives me a cisarette (HID40)	Agree	6%	95	34%
Weighted bases		3232 (100%)	1836 (100%)	1039 (100%)

teachers), but also by the fact that cigareties were occasionally given to them citize by older brethers and sisters or by the parents themselves. A lost of the parents themselves. A lost of the parents themselves. A lost of smoking might be that boye citize promission of the parents' support in order to rationalise an activity which is generally disapproved of by adults. The fact that the scale covers facil about the home which the boy is unlikely to distort like, whiche he is given cigareties, as well as parent's attitute, which he is given cigareties, as well as parent's attitute, which he is given cigareties, as well as parent's attitute, which he is given cigareties, as well as parent's attitute to represent genuitely then sometimes to be a state of the parent of the par

7.2 The characteristics of homes in which the parents are permissive about smoking.

We can now turn to a consideration of the types of borns in which amoking is likely to be encouraged rather than inhabited. In Part I (Chapter 4) we discussed the relationship between a number of family background characteristics and the boys' smaking experience. Table 7.2 shows how each of these characeteristics of the provider of the provider of the provider proportions of boundaries of the source on the percent's permissionness scale who can from home burding those different characteristics.

Table 7.2 Family background characteristics analysed by parents permissiveness

Paradia basharan 1 a		Parents' Per	Perwissivenesi		
Family background chara	cteristics	-	+		
Parents do not punish smokin	g (item 24)	20%	55%		
One or more older siblings at Cigarettes often left around h	(item 23)	28%	46%		
	(item 26)	31%	41%		
Parents smoke	(item 27)	78%	84%		
Two or more older siblings	(item 30)	24%	35%		
Father's social class (manual) (item 31)	65%	68%		
Believes family is working cl	1.98				
	(item 35)	35%	36%		
Weighted Bases		3268	2838		

As might be expected the characteristic having the strongest association with parents' permissiveness was ' parents do not punish smoking': 55% of boys with high scores on the scale thought that the parents would not punish them if they caught them smoking in comparison with 20% of those with low scores on the scale. Other characteristics of the home, though less strongly related to parents' permissiveness than ' parents do not punish smoking', were still clearly associated with it. Thus boys with permissive parents tended to have older brothers and sisters who smoked, and to come from homes where cigarettes were often left lying around; their families tended to be larger than those of other boys, and there was also a small tendency for their parents to be smokers. The only family background characteristics which seemed to bear hardly any relation to parents' permissiveness were the social class of the family as perceived by the boy, and the father's social class.

We can take the analysis of the characteristics of the permissive home further by examining the way in which the various characteristics were related to each other. Table 7.3 shows the correlation of each of them with each other and with parents' permissiveness.

The first point to note about this table is that although in confirmation of the data in Table 7-2 parents do not putule smoking and 'mumber of idder siblings who smoke' had the highest correlation with porests' permissionesse (42 on the product of the product

Table 7.3 Correlations between family background characteristics

	Variable							
Family Background Characteristics	31	35	27	30	26	23	24	2 76
Father's social class (low) (31) Believes family is working class (35) Parents amoke (37) Number of older ablings (30) Extent to which classreties left around house (26)	.18		.04	.06	х			
Number of older siblings who smoke (23) Parents do not purish smoking (24) Parents' permissioness (Scale 2)	03	.01	.02	.00	.05		х	x

Note: Numbers in brackets identify variables in Appendix 6

cigarettes in the home through the presence of other members of the family who are smokers. This possibility is supported by the fact that the characteristic having the next highest correlation with parents' permissiveness - the 'extent to which cigarettes were left lying around at home' - had a higher correlation with 'number of older siblings who smoke' than it had with 'parents do not punish smoking'. The relative independence of 'parents do not punish smoking' as an influence on parents' permissiveness is also shown by its lack of correlation with any of the other family background characteristics, including 'parents smoke'. On the other hand, 'number of older siblings who smoke' and 'extent to which cigarettes were left around the house' both had strong associations with some of the other characteristics. 'Parents smoke' for example, was highly correlated ('52) with the extent to which cigarettes were left lying around the house. Table 7.4 shows that in families where both parents smoked, 80% of the boys said that cigarettes were often left lying around which compares with only 16% in homes where neither parent smoked. We can see from these figures that even though parents' own smoking habits may not contribute much directly to the permissiveness of the atmosphere surrounding smoking in their homes, they can influence it indirectly. The way in which this influence operates can also be seen from the relationship between the extent to which cigarettes were left lying around the home and the number of older brothers and sisters who smoked. The correlation between these two characteristics was '11. Table 7.5 shows that in homes where cigarettes were often left lying around 42% of the boys had one or more older brothers and sisters who smoked which compares with 24% in homes where cigarettes were not left lying around. It seems reasonable to assume that the easy availability of cigarettes increases the tendency for the older brothers and sisters to be smokers, but it is probably the case that the influence operates in the opposite direction as well. Some older

Table 7.4 The relation between eigarettes left around the house and parents ampling habits

Whether cigarettes left around the house	Pa	Parents' smoking (QA3, Book III)							
(QA2, Book III)	Neither Parent Smokes	Only Father Smokes	Only Mother Smokes	Both Parents Smoke					
Yes often Yes sometimes No	% 5 11 84	% 35 40 34	% 41 39 21	% 50 37					
Total	100	100	100	100					
Weighted Bases	1160	1709	672	2563					

Table 7.5 The relation between number of older siblings who smoke and whether eighrettes often left around the house

Number of older	Whether eightettes often left around the house (QA2, Book III)					
siblings who smoke (QA1, Book III)	No	Yes Sometimes	Yes Often			
	5	% 17	% 19			
2 +	8					
1	16	22	23			
None	75	61	58			
Total	100	100	100			
Weighted Bases	1867	2014	2225			

brothers and sisters who smoke may increase the availability of cigarettes in the home by leaving their cigarettes lying around.

As might be expected, family size was strongly correlated (*68) with the number of older brothers and sisters who smoked (Table 7.3), and the former of these characteristics was correlated '18 with father's social class (low)*. We can thus see for the first time how social class may exert an influence on smoking - even if the influence is a very indirect one. It is worth noting, however, in connection with social class, that the social class of the family as perceived by the boy, though correlated '17 with father's social class, had barely any correlation with the other family background characteristics or parents' permissiveness. Though father's social class (derived from his occupation) may influence a boy's perceptions of the social class of his family, it seems that this latter characteristic does not play a part in determining the permissiveness of the boy's home. Its small association with smoking experience (Chapter 4) is more probably brought about by the values the boy holds i.e. it is tied up with the kind of image he wants his friends to have of him as discussed in the previous chapter.

7.3 Anti-smoking strategy

The findings which have just been described can be represented by the diagram which is shown below. The arrows indicate the

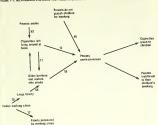
 ⁽Social class was scored in such a way that fathers with unskilled occupations received the highest scores and those with professional occupations received the lowest scores — see Appendix 5, item 31).

probable ways in which the different family background characteristics may be considered to influence each other. It will be noted that all of them, with the exception of the social class of the family as perceived by the boy, contribute in varying degrees to the permissiveness of the atmosphere surrounding objects to the permissiveness of the atmosphere surrounding may be toold be provided by the contribution of the conditions in a family in which other characteristics more directly related to parouts' permissioness may occur as the conditions of the conditions o

From this diagram a number of conclusions can be drawn about the ways in which presents may be able to present the anti-smoking campaign. Although it is colory the part of all else parents should be asked to discourage their children from smoking, werbal admontitions, though valuable, may need to be parents swoid elsewhere the smoking, werbal admontitions, though valuable, may need to be parents would delege in a stime beame. It would be wellandle to be parents would delege in a stime beame. It would be would be in their homes towards their children's smoking. Most drylously if they smoke themselves, they might make sure that their children do not have easy access to eignrefette: they could avoid leaving of the family to do the same.

Although parents' own smoking habits seem to bear little direct relation to the attitudes they adopt towards their children's smoking, parents who stop smoking cut down the supply of cigarettes in the home, which itself can influence the children's smoking attempts. Moreover, among older adolescents (aged 16+) there is some evidence that an association between parent's and children's smoking habits does occur (McKennell and Thomas 1967). In a family it is probably through the mediation of these older children that the influence on the younger ones is most strongly felt. And even in our own sample of schoolboys there was clear evidence that parents adopt a more permissive attitude towards their children's smoking as they get older. Table A. 8.1 (Appendix 8) shows that over the four school years the proportion of boys having high scores on the parents' permissiveness scale increased. There was also a decline in the proportion of boys who said their parents would punish them for smoking, and an increase in the proportion who said that cigarettes were often left lying around at home. The increasingly permissive atmosphere in the boys' homes as they got older is perhaps most clearly shown by the change in one of the four components of the parents' permissiveness scale. In the first year 7% of the

[•] Although there is danger in inferring causal relationships from correlation coefficients, methods have been developed for using correlation coefficients to help evaluate different possible causal models (e.p. Bislock, 1964). The causal relationships suggested by this diagram and another dargram in the next chapter conform broadly with these principles.



smokers said that one of their parents sometimes gave them a cigarette, whereas in the fourth year 31% of the smokers said they occasionally received a cigarette in this way.

What parents perhaps do not realize is that by loosening restrictions on smoking by the older children they are unwittingly prompting the younger ones to smoke as well. McKensul and Thomas (1987) found that the overested hospital control of the c

The discriminant analysis (Chapter 5) suggested that herous's permissioness had a weaker influence on smoking among grammar school children the body and the summar school summar modern or compressioned to the summar school search modern or compressioned towards smoking did not differ between the different types of school, byps at secondary modern and comprehensive schools tended more than those at grammar schools to have older brothers and sisters who were smokers, to be

members of large families and to have fathers with manual occupations (Table A. 8.2, Appendix 8). And there was a slightly greater tendency for the parents of secondary modern and comprehensive schoolboys to be smokers even though cigarettes were not left around in their homes any more than in the homes of boys at grammar schools. From these findings we can see that more boys at secondary modern schools and comprehensive schools are living in a smoking environment than are their contemporaries at grammar schools, and this will inevitably lead more of them to see smoking as the norm for adult men. For these reasons it would seem that a particularly strong effort should be made in comprehensive and secondary modern schools to involve parents in the anti-smoking campaign. Parent-teacher association meetings in conjunction with letters and pamphlets circulated to all parents would appear to be good ways of making parents aware of the effect their habits and attitudes can have on their children's smoking.

8 HEALTH EDUCATION

The remaining major influence on whether a boy takes up smoking it has attitude he adopt to the danger of getting Jung cancer. Health educators have concentrated their main efforts in this area, but as noted in Part i (Chapter 9) altrough success has been achieved in making children generally aware of the lang cancer risk, this length of the statistic storaged better own smoking. Even though a boy may believe he will get lang cancer in the continues to smoke, he may not necessarily be detured from smoking. Even though a boy may believe he will get lang cancer in the continues to smoke, he may not necessarily be detured from smoking by this belief. One of the main problems facing each deturned in the continues of the continues to smoke the major than problems facing the continues of the continue

8.1 A typology of reactions to the health argument against smoking

In order to investigate ways of increasing receptiveness to the health argument against smoking the boys were divided into four groups. Each of these groups represented a different reaction to the belief that smoking causes lung cancer as shown below.

- Group 1. Contained boys who did not believe that they would get lung cancer if they smoked, and were not put off smoking by the danger of lung cancer (designated B - P -).
- Group 2. Contained boys who believed that they would get lung cancer if they smoked but were not put off smoking by the danger of lung cancer (designated B + P -).
- Group 3. Contained boys who did not believe that they would get lung cancer if they smoked, but were put off smoking by the danger of lung cancer (designated B - P+).
- Group 4. Contained boys who believed that they would get lung cancer if they smoked and were put off smoking by the danger of lung cancer (designated B + P+).

This typology may be looked upon as representing the degree of success which health educators have had in patting boys off smoking. In the B-P-group (13% of the total sample) were boys who had respeciated least to health odeaction, their beliefs above the health risk in smoking and their sattle (B-P) were boys examined unafficient and their sattle (B-P) were boys examined unafficient by the total); they were convinced that they would get long cancer if they smoked, but this belief was not sufficient to put them off

anotine. The next group (B. Ps), which was very small (85), appeared to have responded alighty mere. They desired that they would get lung cancer from smoding but, nevertheless, saud that the danger of lung cancer did put them off it. Finally, in the B-Ps group were the boys (69% of the total) who had responded most to health elevation. They believed that they would get lung cancer if they continued to smoke and said that would get lung cancer if they continued to smoke and said that boys cance into this last category suggests that the anti-a-moking campaign has had a good measure of success in patting the health of boys cance into this last category suggests that the anti-a-moking campaign has had a good measure of success in patting the health of boys who either remain uncontraced B- (215) or find some way of avoiding the implications of the message over contributive the inspitations of the message to the message to the message to the message on the missactives.

As might be expected a boy's responsiveness to the health argument against smoking was strongly associated with his own smoking experience. Table 8.1 compares the proportions of non-smokers, triers and smokers who were in each of the four BP groups.

Table 8.1 - Response to the health argument against smoking analysed by smoking experience

B.P. TYPE	Non Smoker	Trier	Smoker
	%	%	%
В-Р-	5	16	29
B+P=	13	19	42
B-P+	9	8	4
B+P+	72	57	25
TOTAL	100	100	100
Weighted Base	3230	1836	1038

Note: B = Belief that lung cancer will result from smoking.

P = Whether put off smoking by the danger of getting lung cancer.

Seventy two per cent of the non-smokers had responded completely to the health argument against smoking (B-P+) and only 5% had not responded at all (B-P-). This compares with 25% of the smokers who had responded completely (B+P+), and 29% who has not responded at all (B-P-). These figures may also considered encounting, as even among the smokers a substantial number were deterred from smoking by the lung cancer danger. Only about one quarter had rejected the health argument completely and the majority of the remainder came into the intermediate categories (B-P- and rejected the health argument of the remainder came into the intermediate categories (B-P- and plus of this evidence of access with the smokers, we still have \$5 \times for non-smokers and the smokers, we still have \$5 \times for non-smokers and rejected the health argument. These boys would appear to be most vulnerable to notical pressures encouraging the them to the contract of the smokers of the smokers and number to (i. i. would some almost inevitable that they should take up smoking it their friends do so.

Tables 8.2 and 8.3 show how responsiveness to the health argument against smoking was related to type of school attended and school year. Although there seemed to be little difference in the proportions of boys falling into the four BP groups between the different types of school, there was a variation in these proportions across the four school years. As the boys got older there was a drop in the proportion who believed in the danger of lung cancer and were put off smoking by it (B+P+), and a rise in the proportion who were not at all deterred by the lung cancer danger (B-P-); in the first year only 6% were in the B-P- category, but by the fourth year this proportion had risen to 19%. These figures suggest that as boys get older their resistance to health argument against smoking increases. In spite of the increase, as they get older, in the information they receive about lung cancer and smoking Part I (Chapter 3), they become less convinced that it need affect them personally.

Table 8.2 Response to the health argument against smoking campaign analysed by type of school attended

В. Р.		School Type	
Type	Secondary modern	Grammar	Comprehensive
B-P-	5 12	% 14	% 12
B+P-	19	18	21
B-P+	8	8	9
B+P+	60	59	57
TOTAL	100	100	100
Weighted bases	3924	1483	697

Table 8.3 Response to the health argument against smoking campaign analyzed by school year

B.P.	School year								
Type	1st year	2nd year	3rd year	4th year					
	%	%	% 13	9					
B-P-	6	12	13	19					
B+P=	16	15	23	25					
B-P+	9	8	7	8					
B+P+	69	65	57	48					
TOTAL	100	100	100	100					
Weighted bases	1577	1516	1550	1461					

Note: B = Belief that lung cancer will result from smoking.

P = Whether put off smoking by the danger of getting lung cancer.

8.2 Other attitudes and beliefs related to responsiveness to the health argument

The aim of health education may be conveniently defined as the conversion of all boys to the position of maximum responsiveness to the lang cancer argument (Ib-Po) and the prevention of these boys who have responded to It from changing their attitudes the properties of the properti

Tables 8.4 and 8.5 show the proportions of boys in each of the four BP groups, at each of the three levels of smoking experience ('not smoking', 'trying' and 'smoking'), who received high scores on these scales. Table 8.4 contains three scales which were positively associated with responsiveness to the health argument against smoking. At each level of smoking experience boys in the B+P+ groups tended to receive higher scores on these scales than boys in the B-P- groups. A favourable response to the anti-smoking campaign was thus further indicated by disapproval of smoking (thinks smoking is a dirty habit, is bad for you and that boys who are caught smoking should be punished, favours taking away cigarette slot machines, denies that smoking is very enjoyable); extent to which smoking can affect health (believes that smoking can weaken you, can damage your mouth, throat and teeth, and can give you bad breath); 114

and worry about adult smoking (believes people who smoke are trapped and can never give it up, is upset to see how helpless grown-ups are when they try to give up smoking, is worried that so many cannot give up smoking, cannot understand why grown-ups smoke so much).

Table 8.4 Attitudes and beliefs indicating favourable response to the anti-smoking campaign

Type of response to the health message		Disapproval of smoking + (Scale 17)	Worry about adult smoking + (Scale 1)	Extent to which Smoking can affect kealth + (Scale 18)	Weighted Bases
	в-Р-	1%	22%	21%	277 (100%)
	B+P-	4%	25%	38%	408 (100%)
Bmoker	B-P+	13%	34%	37%	36 (100%)
	B+P+	22%	39%	63%	245 (100%)
	B-P-	10%	26%	43%	290 (100%)
	B+P-	20%	33%	52%	344 (100%)
Trier	в-Р-	39%	51%	66%	148 (100%)
	B+P+	48%	51%	75%	1028 (100%)
	В-Р	25%	38%	59%	176 (100%)
Non	B+P	41%	49%	87%	417 (100%)
Smoker	B-P	52%	55%	72%	293 (100%)
	B+P	+ 86%	60%	72%	2302 (100%

iote: B = Belief that lung cancer will result from smoking.
P = Whether put off smoking by the danger of getting lung cancer.

In contrast Table 8.5 condains there scales which were negainely associated with responsiveness to the health argument against smoking. Boys with high scores on these scales tended to be in the Ra-P_c rouger states them emoding, campaign and to be in the Ra-P_c rouger states that a mending campaign was one of the responsive to the responsive to the responsive to the function of the responsive to the it is only dangerous if you discover the responsive to the responsive time of the responsive to the responsive to the responsive to the responsive tender to the responsive to the responsive to the responsive to the responsive tender tender to the responsive tender tender tender to the responsive tender ten for young people to amoke as they don't get cancer, thinks people who try to prevent you from smoking are bossy and mony, thinks punishing children for smoking is useless); and belief that smoking relieves tension (thinks amoking makes you feel on top of the world and more at east en is group, thinks smoking meeting the smoking belief to the smoking that the smoking of the world and more at east end are you.

The fact that marked variations occurred in the proportions of boys with high scores on both these sets of attitude scales at each level of smoking experience, suggests that although smoking experience clearly plays a part in influencing attitudes towards smoking, these attitudes can chance, and offen the

Table 8.5 Attitudes and beliefs indicating unfavourable response to the

Type of response to the health message		Belief that smoking is not dangerous to children + (Scale 16)	Opposition to dissunders + (Scale 15)	Belief that smoking relieves lension (Scale 14)	Weighted Base
	B - P -	66%	79%	80%	277 (100%)
	B+P-	62%	69%	82%	408 (100%)
Smoker	B-P+	59%	67%	72%	36 (100%)
	B+P+	71%	53%	63%	245 (100%)
	B-P-	62%	59%	68%	290 (100%)
Trier	B+P-	60%	51%	64%	344 (100%)
Trier	B-P+	58%	40%	50%	148 (100%)
	B+P+	51%	33%	46%	1028 (100%)
	B-P-	52%	44%	47%	176 (100%)
Non	B+P+	-66%	43%	43%	417 (100%)
Smoker	B-P+	55%	36%	45%	293 (100%)
B+P		42%	24%	29%	2302 (100%)

Note: B = Belief that lung cancer will result from smoking.

P = Whether put off smoking by the danger of getting lung cancer.

change, without smoking experience itself changing. This conclusion is further supported by the fact that at any one level of smoking experience there are boys who have more in common in their attitudes with boys at another level of smoking experience than they have with other boys at their own level. Considering apposition to dissuaders, for example (Table 8,5), 79% of the boy smokers who had responded least to the lung cancer argument (B-P-) had high scores on this scale (i.e. were strongly opposed to people who try to dissuade children from smoking) in comparison with 53% of the smokers who had responded most (B+P+). Among the triers who had responded least to the lung cancer argument, however, (B-P-), there was a rise to 59% who were opposed to dissuaders and then a drop to 33% among those who had responded most (B+P+). Finally there was another rise among the non-smokers who had responded least to the lung cancer argument (B-P-) to 44% who were opposed to dissuaders, and then a final drop among those who had responded most (B+P+) to 24%. This shows that although the two extreme groups on the scale were the B-P- smokers on the one hand (79% with high scores) and the B+P+ non-smokers on the other (24% with high scores), in between there was overlapping between the smokers and the triers and the triers and the non-smokers. In other words some non-smokers had responded less favourably towards the anti-smoking campaign than a large proportion of triers, and similarly some triers had responded less favourably to the campaign than a substantial number of smokers.

A similar picture can be seen for all the other scales with the exception of belief that smoking is not dangerous to children. For this scale there was less striking evidence of overlapping between boys at different levels of smoking experience, and among smokers the scale was not associated with responsiveness to the lung cancer argument. We shall return to the implications of this last finding later, but at this point we can draw the following conclusions. From their attitudes it seems that many boys in the trier and non-smoker groups are well on the route to the next stage of smoking experience even though, perhaps because of lack of social pressure from friends, or the presence of strong parental restrictions, they haven't actually reached it. On the other hand many smokers and triers have responded to the campaign: social pressure from friends or a permissive family background may be keeping these boys smoking, but it would seem that they would be particularly responsive to further anti-smoking appeals.

The data in Tables 8,4 and 8,5 suggest some of the ways in which hops are able to reject the health a regument against smoking, and also say they should do so. Considering Table 8.5 first, boys in the B-P-group at all levels of smoking experience had a generally negative attitude to the campaign. They reserted interference from adults who tried to stop them doing what they

liked to do (high scores on opposition to dissunders), and they also believed this modeing is not dangerous to children. But more important, perhaps, than either of these two attitudes was their bielde that smoking can help to relieve tension: as nearly than the control of th

Terming to Table 8, we can increase with substitution of the other and of the scale whose who that response below to hast-sendent been attended to the scale whose the scale w

8.3 Relationships between boys' beliefs and attitudes

The investigation of the attitudes which accompany acceptance or rejection of the health argument against smoking is taken

Table 6.6 Correlations between attitudes and beliefs indicating favourable and unfavourable responses to the anti-smoking campaign

Attitude								
	17	1	16	16	15	14	B+	p.
Disapprovat of smeducy (Scale 11)	×			Attiti	sties in	willicatio	W 0	
Warry about adult assabing (Scale 1)	.41	×		favor	rabbe tripeli	respon	meto	
Extent to achiek associasy non-officer benefit (Beale 16)	.37	.22	×	186.61	ritani			witications
Behief that mushing smal danger one to children (Scale 16)	15	.03	05	X		Att Ked	AVOR	nider
Opposition to discussions (Scale 15)	40	05	19	.30	x	respo		othe
Belve (Net swobag relves ex tension (Scale 54)	40	-,10	17	.19	-34	X		
Believes could get lung cancer from smaking B+ (tiem 80)	-24	.12	-13	12	+,20	-,13	X	
Put off smoking by the danger of lung cureer Po (Hem 26)	-49	. 27	.28	14	-,19	-, 25	+,50	x

further by Table 3.8 which shows be correlations between the sia stittides easies, the bellef that medicing causes impact and generate [3-], and 'whether deterred from smoking by the danger of ling cancer [9-]. It is notble that the scale disapproval of smoking has the highest correlation (, 40) or all the attitude belief in the lung cancer danger [6-] was less strongly associated with P+ than was disapproval of smoking; and this suggests that whether a boy is put off smoking by the danger of lang cancer is more a product of this general stitutes to smoking as health saxed involved.

Table 8.6 shows several other interesting relationships between the attribute scales. It is notable, for example, that all of them with the exception of belief that moding is not deagerous to children and B- had higher correlations with disapproval of smoking than they had wife each other, and that is some cases there was almost complete absence of correlation between two attitudes which were both highly correlated with the strategies of th

These relationships are illustrated by Figure 8.1 which shows how all the different attitudes can be considered to affect each other. We may look upon the four attitude scales with the highest correlations with disapproval of smoking as different facets of a boy's basic attitude position in relation to smoking. As his attitude to smoking as a 'good' or a 'bad' habit changes. then his position is likely to change on these scales as well. Conversely each of these other attitudes may be reinforcing his position on the disapproval of smoking scale, even though the changes which occur in them have very little to do with smoking itself. For example, a boy who becomes strongly opposed to adult interference in teenage affairs may come to view smoking favourably simply because the anti-smoking campaign is largely an adult enterprise. Similarly a boy who is concerned about the effect of smoking on his parent's health may come to see smoking as a generally 'dirty' and 'unpleasant' habit as well. The belief that smoking is not dangerous to children may also exercise an influence on disapproval of smoking. but indirectly. This attitude scale had relatively small correlations with all the other scales except opposition to dissuaders, and it would appear to represent the sort of defence which many boys (non-smokers and triers particularly) use to justify their rejection of the arguments of health educators. A boy who strengthens or weakens this defence is likely to change his position on the opposition to dissuaders scale, and consequently his basic attitudes to smoking. The effect of health education, as traditionally given, may be seen to operate through B+. Boys who are persuaded to accept the argument that they vill get lung cancer if they smade will also tend to disapprove of smoking more, and to be put off smoking more (P-). But what is particularly striking is that larger changes in disapproval of smoking and P- are tikely to take place if changes occur in the other attitudes we have considered. It is these other attitudes which may not have been given sufficient attention in antismoking camagings in the near.

FIGURE 8-1. THE RELATIONSHIPS BITMEEN ATTITUDES TO SMOKING AND RESPONSE TO THE ANTI-SMOKING CAMPAIGN



8.4 General anti-smoking strategy

We saw in Part I (Chapter 3) the wide range of reasons boys give for not being part off amiding by the danger of lung cancerrate of the reason of the reason of the reason of the reason of the part has cancer, "very feer 100 th warry blood it," how smokers pet hang cancer, "very feer 100 the reason of the re ways in which children's responsiveness to health education on smoking might be increased. The wide range of attitudes which can occur at any one level of smoking experience, and the prominence of disapproval of smoking as a correlate of whether a boy is put off smoking by the lung cancer danger, underlines the need to bring about changes in boys' general attitudes to smoking as well as to provide them with more information about the personal risk involved. One obvious way in which this aim might be achieved is to reinforce the components of the disapproval of smoking scale by suggesting that smoking is a 'dirty' and 'unpleasant' habit with few positive attractions. But as will become clear later it may be more valuable to try to influence the other attitudes with which the 'disabbroval of smoking' scale is correlated. Thus boys' negative attitudes to smoking might be strengthened by emphasising the other damage to health that smoking can do besides causing lung cancer, and by reinforcing their concern about adult smoking. The importance of this latter attitude area may not have been sufficiently realised in the past. Few adults who smoke probably have any idea that children of this age are concerned about the damage they are doing to their health. If they would be made aware of this anxiety they might be prepared to modify their own smoking behaviour - particularly when children are in their presence. Another way of strengthening disapproval of smaking might be to try to disnel children's belief that smoking is a good means of reducing tension. Without directly contradicting their opinions about the usefulness of smoking, which might conflict too strongly with their observations of adult smokers, it might be possible to persuade them that the benefits claimed for smoking are exaggerated. The remaining correlate of disapproval of smoking - opposition to dissuaders might also be influenced, but to change a boy's position on this scale is more of a problem. Boys with high scores on this scale identify the anti-smoking campaign with adult interference, and appear to reject its health message, not only because they are attracted to smoking, but because they resent adults' telling them what to do. To combat this attitude it is clearly necessary to present the health message of the anti-smoking campaign in a way that will be accentable to schoolchildren. It would seem that the more frequently it can be identified with attractive young adults and older teenagers the more likely children are to respond to it. It is also worth recalling that opposition to dissuaders was correlated with the belief that smoking is not dangerous to children. Combating this rationalisation for smoking is also likely to assist in weakening resistance to the campaign.

8.5 Anti-smoking appeals addressed to smokers

The approaches considered in the previous section may be useful in discouraging non-smokers and triers from moving to the next stage of smoking experience. Further points need to be

taken into account, however, in using them to try to influence the attitudes of smokers. McKennell and Thomas (1967) drawing upon the findings of Sherif and Hoyland (1961) have argued that denving to the smoker that he gains pleasure from smoking when he knows very well that he does, or to suggest that smoking is a 'dirty' or 'bad' habit is likely to produce 'boomerang' effects in which rejection of one particular theme in an anti-smoking communication is accompanied by increased resistance to the communication as a whole. Approaches which denigrate smoking may be well received by non-smokers, but because of the danger of 'hoomerang' effects they should be used with caution, if not avoided altogether, when addressing smokers. The main requirement according to McKennell and Thomas is to present the smoker with ideas which will fall within his 'latitude of acceptance', i.e. ideas which are not very far removed from his own point of view. If he can be persuaded to accept them then their association with other ideas which he rejects more strongly will ensure that these ideas too will become more acceptable. When addressing adults there is even some justification for endorsing the smoker's view that smoking can provide some positive benefits. rather than denving it, as this may make him more favourably inclined towards those arguments which he has fewer good reasons (from his own point of view) to reject.

For children the problem of 'boomerang' effects is probably less serious because of their limited experience of smoking, and because for most of them smoking's main attraction is the prestig is tig type them in the eyes of their friends (Chapter 6). Nevertheless, as noted in Chapter 4 (Part 1), there are indications that some boys gain personal satisfactions from smoking which are independent of adolescent group activity. These boys are independent of adolescent group activity. These boys are independent of adolescent group activity. These boys are found to the contraction of the contraction of

We were able to investigate the reactions of non-smokers and triers to the belief that smoding causes lung cancer only by finding out whether they were put off smoding by it, but for smokers, in addition, we were able to find out whether they wanted to stop smoking or whether they meant to go on, and the smoking of the smoking or whether they meant to go on, and the smoking of the smoking that she to stop. In Chapter 3 Part 11 it was shown that the danger of getting lung cancer and the possibility of other damage to health were the principal reasons given by boys for wanting to give up smoking, but also the expense of smoking, parental disapproval of it, and the desire to be fit for sports, were given as the principal reason by many boys. Table 8.7 shows the proportions of the smoking transition by many boys. Table 8.7 shows the proportions of the smoking of the smoking that shows the proportions of the smoking that th

It is notable that most of the smokers who wanted to stop smoking because they thought they might get lung cancer also wanted to stop because they thought smoking costs too much (82%) or because their parents disapproved (81%), and over two thirds gave the desire for fitness as a reason. These figures show that most boys have a number of motives behind their desire to give up smoking, and that all of these motives are associated with the lung cancer motive. From this we can conclude that an anti-smoking communication which reinforces one reason for giving up smoking e.g. the expense of smoking as discussed in Chapter 4 (Part I) will also reinforce the lung cancer reason. This conclusion is extended by Table 8.8 which shows the relation between the amount the boys smoked and the extent to which different reasons were given by them for wanting to give up smoking. The more the boys smoked the less they wanted to give up smoking because of lung cancer, expense, parents' disapproval, or the desire to be fit for sports. But it is notable that the biggest changes occurred in relation to the two health reasons (lung cancer and fitness for sports). In contrast, the cost of smoking was still sufficiently prominent in the minds of the heaviest smokers for 41% of all of them to

Table 8.7 The relation between wanting to give up smoking because of the danger of getting lung cancer and other reasons for wanting to give up zmoking. (Q21 (10), Book III, Appendix 4)

Other reasons for wanting to give up smoking	Does not want to give up smoking because of lung cancer	Wants to give up smoking because of lung cancer	
I think smoking costs too much.	23%	82%	
My parents don't like me smoking.	23%	81%	
I want to be fit for sports.	15%	69%	
Weighted bases (all smokers)	646	392	

want to give up smoking because of it; parental disapproval was also mentioned by about one third.

Table 8.8 Reasons for wanting to give up smoking analysed by amount smoked

Reasons for wanting to	Cigarettes smoked a week			
give up smoking	1 - 9	10 - 19	20+	
I think smoking				
costs too much	52%	38%	41%	
My parents don't				
like me smoking.	54%	41%	34%	
I want to be				
fit for sports.	41%	34%	28%	
think I might				
get lung cancer.	46%	34%	28%	
Weighted bases		-		
all smokers)	475	247	317	

The data in Tables 8.7 and 8.8 give support to the current practice of ringing the changes on the expense and lung cancer themes in anti-smoking communications. First, even though the audience may be 'saturated' with one of them, their acceptance of it may still be increased through the medium of the other one. Secondly there is a good case for using the cost of smoking particularly, as an alternative, or in addition to. the danger of lung cancer as an argument for giving up smoking, Even for the heaviest smokers this argument continues to have validity, and reinforcing it will help increase their receptiveness to the other arguments which they are less disposed to accept. What has perhaps not been sufficiently realised before now is the value of parental disapproval as a means of reinforcing the health theme: if a boy wants to give up smoking because his parents disapprove of it, then the fear of lung cancer is also likely to be behind his desire to give it up. This finding emphasises further the importance of involving parents in the antismoking campaign as discussed in Chapter 7,

Finally, Table 8.9 throws more light on the ways in which smokers' receptiveness to health education might be increased. It shows the relation between the six attitude scales indicating favourable and unfavourable responses to the campaign and the amount the boys smoked. Considering first the three attitude scales indicating a favorable response to the campaign, it is notable that in comparison with non-smokers and irrertion of the control of the control of the control of the scale of the control of the control of the control of of smoking scale. Attempts to influence their positions on this need are the control of the control of smoking scale. Attempts to influence their positions on this because the attitudes covered by it are a long way removed to the control of the control of the control of the control of smoking scale. Attempts to fail the control of the because the attitude areas when the control of the control of the would appear to the insopre of the other attitude areas which we smoorthated with adaptive of growning. Atthough at one we smoorthated with adaptive of growning. Atthough at

Table 8.9 Attitudes indicating a favourable or unfavourable response to the anti-smoking campaign analysed by amount smoked

	Cigarettes smoked a week		
Attitude	1 - 9	10 - 19	20+
Favourable response Disapproval of			
smoking (Scale 17) +	9%	6%	7%
Worry about adult smoking (Scale 1) +	30%	30%	23%
Extent to which smoking con affect			
health (Scale 18) +	43%	33%	37%
Unfavourable response			
Belief that			
smoking is not + dangerous to	67%	62%	60%
children (Scale 15) 4*	37%	35%	22%
Opposition to dissuaders (Scale 15) +	67%	69%	71%
Belief that smoking relieves tension, + (Scale 14)	69%	75%	87%
Weighted bases	475	247	317

^{*} Top score of scale.

in the numbers who were worried about adult smacking or believed that smoding could affect health in other ways besides causing lung cancer, even among the heaviest smoders substantial numbers still believe three the smoothers substantial numbers still believe the smoothers that conclusions it would seem that reinforcing the smokers' concern about adult smoding, and supplying them with more information about general health, is probably the best way of tringing smoother scale.

Turning ...ow to the attitudes indicating an unfavourable response to the campaign, we can arrive at similar conclusions. Here the main problem area is represented by the belief that smobing relieves tension. Even among boys who were smoking least heavily, 69% had high scores on this scale and of the heaviest smokers the proportion was as high as 87%. On the other hand the tendency to be opposed to dissuaders did not increase as the boys came to smoke more heavily, and in the case of the belief that smoking is not dangerous to children there was even a slight decline in the proportion with high scores as the amount smoked increased. (This drop is shown even more clearly when boys with the top score on the scale, (score = 4) are compared with those having lower scores.) Thus although as boys come to smoke more heavily, direct denial that smoking can have beneficial effects may meet with increased opposition and the danger of 'boomerang' effects methods of combating opposition to dissuaders, and further evidence which refutes the belief that smoking is not dangerous to children are not likely to be met with increased resistance.

The small decline among the heavier smokers is the belief that smoking is not designerous to hildren so of particular interest in this context. Although as we saw earlier, as boys move from the properties of the state of the same state of the sam





APPENDIX 1

Sample Design by R.M. Blunden.

A1.1. Definition of the sample

A1.2. The design A1.3. Methodology

A1.4. The obtained sample

A1.1 Definition of the sample

The sample was to be one of boys only aged 11 years to 15 years inclusive, who were attending maintained secondary schools in England and Wales. To enable comparisons to be made between boys attending different types of school, a sample of approximately 6,000 in this age range was required.

A1.2. The design

A study of the figures for boys of all ages in maintained secondary schools in England and Wales in 1985 (Table A.1.) shows that approximately 55% were in Secondary Modern schools with a further 25% in Grammar schools. The remaining 20% were divided between Secondary Technical, Comprehensive, Bi- and of "Others" which include All-Age and Special schools.

Table A1.1 Distribution of boys of all ages by type of secondary school

Secondary Modern	Grammar	Secondary Technical	Bi- and Multi- lateral	Compre- hensive	Others	All Schools
800,500	365,500	50,600	30,600	126, 100	78,600	1,451,900
(55·13%)	(25-17%)	(3:49%)	(2·11%)	(8-69%)	(5·41%)	(100-00%)

In each type of school the proportion of all hops who fall into the age-group II to If years writer from over 96% in the Secondary Modern stratum to about 62% in the Crammar. It was contary Modern the Crammar in the

- (i) Secondary Modern
- (ii) Grammar
- (iii) Comprehensive together with Bi- and Multi-lateral.

The total population of boys of all ages in each of these three types of school is shown in Table Al.2 together with estimated populations of boys in the first four years of school based on the different proportions in the various types of school as calculated from research done in 1964.

Table Al. 2 Breakdown of boys of all ages and estimated numbers in the first four years by three types of school

Type of School	Boys All-Ages	Est. No. of Boys in 1st 4 years
Secondary Modern	800,500	722,000
Grammar	365,500	228, 800
Comprehensive + Bi- and Multi-lateral	156,700	125,800
Total	1 322 700	1 026 600

Within each of these three types of school the proportions of boys attending 'boys only' and 'mixed' schools varied as shown below (Table A1.3).

Table Al. 3
Proportions of boys in single sex and mixed schools by type of pobool

Type of School	Boys Only	Mixed	Both
Secondary Modern	34-4%	65-6%	100-0%
Grammar	64-3%	35-7%	100-0%
Comprehensive + Bi- and Multi-lateral	31-2%	68-8%	100-0%

In the light of these data it was decided that the design should be such that approximately eagl numbers of boys in the first four years of school should be taken from each of the six cells. This would enable comparisons to be made between types of school and within type of school by whether they were boys only or mixed. By simple reweighting, although the factor for boys in the single-sex comprehensive group would be rather large, it would be possible to add together the data from each cell.

The weights to be applied to each population to achieve approximately equal numbers of boys in the age-group are shown in Table A1.4 below.

Table A1,4 Weights applied to cell populations

Type of School	Boys Only	Mixed	
Secondary Modern	- 5	1/2	
Grammar	1	2	
Commonly Di			

The weighted theoretical distribution of the sample between cells, assuming that the proportions of those in the first four years is the same in both the boys only and mixed schools, is shown in the following table (Table A1.5).

Table A1.5

Theoretical distribution of weighted sample of boys in first four years

	Secondary Modern	Grammar	Compre- hensive	All
Boys Only	1,019	901	996	2,916
Mixed	984	1,002	1,098	3,084
All	2,003	1,903	2,094	6,000

With this information, the sample was designed to be a stratified random one in three stages with schools as the primary sampling units, ten being selected from each cell.

As the survey was to be administered in the schools, classes were introduced as intermediate units and boys in the selected classes as the final stage units. One class from each of the four years would be selected in each Poys only's school and two classes from each year in the mixed schools on the assumption that in the latter, only half the class would be boys.

Al.3 Methodology

All schools in the categories Secondary Modern, Grammar and Comprehensive (including Bl. and Multi-laterall were grouped within each type in order of the eleven education regions. Within these 6 strata they were further grouped by education authority. From each of the six strata 10 schools were selected with the stratage of the six stratage of

Each of the 60 schools so selected was written to and asked to complete a form, giving the names of the individual classes by year for each of the first four years and the number of boys in each of them. The principals of the schools were asked to indicate, where applicable, the stream or ability of each class.

As the data were received they were listed within each six colls according to the number of classes contained in each year. The number of classes wated between one per year in some states of the contract of the contract of the contract of the contract were listed for each school in decording order office they, where this was given, or, when no indication was given of the relative this was given, or, when no indication was given of the relative by the principal of the school. No criteria were available by the principal of the school. No criteria were available by compared with those of other schools, one school could be In the 'boys only' schools, one class per year was selected in such a way that in no one school were all the classes selected of the same ability and throughout the 10 schools the range of levels of ability were covered as far as possible. Where schools had only one class per year, all four classes were included.

The procedure with the mixed schools was the same except that two consecutive classes with the same or nearly the same ability were taken in each year in each school and the boys in them were combined to form one class for the purpose of the survey.

Al.4 The obtained sample

The procedure outlined above produced a total sample of 6,722 boys. Table A1.6 shows a breakdown of the sample by type of school and school year. It will be seen that across the twelve cells of the table the numbers of boys fluctuated between 250-300 boys per cell.

Table A1.6

a Breakdown of expected sample by type of school and school year

Colored Process		School	Total			
School Type	1st.	2nd.	3rd,	4th.	rotai	
Secondary Modern	Boys Only	289	305	250	259	1,103
	Mixed	304	273	296	304	1,177
Grammar	Boys Only	293	298	293	280	1,164
	Mixed	252	296	259	254	1,061
Comprehensive	Boys Only	281	295	302	296	1,174
	Mixed	285	245	298	265	1,093
TOTAL		1,704	1,712	1,698	1,658	6,772

As the numbers of boys in Table A1.6 were obtained from school records they represented the maximum sample size that we might have expected to find when the field work was carried out. In practice losses from the sumple occurred which were impossible to prevent. In some schools heads asked parents are present prevent. In some schools heads asked parents appeared to the prevent of the prevent of the prevent prevent losses of this kind the total sample was reduced to \$5,601. A breakdown by school type and school year is given in Table A1.7. Table A1.8 shows the response rate for each for the year within each type of school, which is the ratio of the number who could have taken part. It will be seen that the response was poorest in the mixed secondary modern schools dropping to 86% in the fourth year. In the grammar and comprehensive schools, except in the second year in mixed grammar schools, it was consistently above 80%.

Table A1.7

Breakdown of obtained sample by type of school and school year

School Type		Schoo	d Year			
	1st.	2nd.	3rd.	4th.	Total	
Secondary Modern	Boys only Mixed	257 218	260 195	214 222	201 207	932 842
Grammar	Boys only Mixed	253 222	268 217	264 216	243 255	1,028
Comprehensive	Boys only Mixed	245 229	250 204	252 253	242 214	989 900
TOTAL		1,424	1,394	1,421	1,362	5,801

Table Al.8 Response rate for each school year within each type of school

School Ty		Schoo	4 Year			
			2nd.	3rd.	4th.	Total
Secondary Modern	Boys only	89%	85%	86%	78%	89%
	Mixed	72%	72%	75%	68%	72%
Grammar	Boys only	86%	90%	90%	87%	88%
	Mixed	88%	73%	83%	100%	86%
Comprehensive	Boys only	87%	85 %	83%	82%	84%
	Mixed	80%	83%	85%	81%	82%
TOTAL		83%	81%	84%	83%	82%

As noted in Al. 2 the sample was designed so that detailed analysis could be carried out within different types of school. For analysis inhother, the total sample weights were applied the reciprocals movime the total sample weights were applied the reciprocals of the reciprocal sample weights as well as the distribution of boys between the 6 stiffs out types of school was much the same as in the total population of school boys in this age-group. Table Al. 9 shows a breakdown of the weighted sample by school type and school weight of the sample by school to the sample of the sample of

Table Al. 9 Breakdown of weighted sample by type of school and school year

			School			
School Typ	lst.	2nd.	3rd,	4th.	Total	
Secondary Modern	Boys only	385	390	321	302	1,396
	Mixed	652	585	666	625	2,526
Grammar	Boys only	253	268	264	243	1,028
	Mixed	111	109	108	127	458
Comprehensive	Boys only	62	62	63	60	245
	Mixed	114	102	128	106	450
TOTAL		1,577	1,516	1,550	1,461	6,10



APPENDIX 2

General Instructions for classroom work and other documents relating to the survey

- A2.1 General instructions for classroom work.
- A2.2 Digest of points to be made by the team leader in introducing the survey to the children.
- A2.3 Form A (smoking classification and class information).
 A2.4 Form B
- A2.5 Form C
- A2.6 Sheet I
- Notes: (1) Forms B and C were completed during an interview with the headmaster of each school with preceded the survey. The purpose of this interview was to make a rrangement for carrying out the work in the classroom (recorded on form B), and also to obtain details of any action which had been taken in the school to discourage the children from smoking (recorded on form C).
 - (a) The head was saked to assess the average academic ability of the boys in each of the forms which were selected for the survey. Sheet I shows the five-point scale of academic ability in terms of which the head rated each selected form. This rating was transferred to form A, together with the other information about the class, before the survey too place. The class serial number (dentifying class and school type) was transference and consolutionair at the completion of the work
 - (3) The definitions of smokers, triers and non-smokers, employed in the smoking classification (A2.1 Form A) are not the same as those which are used in the analysis (see item 76, Appendix 5.2)

Arrival at the School

Arrangements should be made with the team leader to meet her at a suitable time and place outside one of the school entrances, before the session commences.

Documents

The following documents will be required in the classroom;

Book I (General background and information to determine whether the child smokes or not).

Book II (Attitudes - not on smoking).

Book III (Smoking questions for non-smokers).

Book III (Smoking questions for triers),

Book III. (Smoking questions for smokers).

OV (Vocabulary test)

QV (Vocabulary test).

Book IV (Reserve questions

Book IV (Reserve questionnaire for children who finish quickly),

Q.VI (Essay files for exceptionally quick children)

Q VI (Essay titles for exceptionally quick children).

Form A (Classification information for class and smoking classification for each child. A, B or C).

Cards (Children's Code Numbers),

Smoking Classification

The smoking classification for each child is carried out as follows:

Children who answer "No" to Q.14 in Book I are NON-SMOKERS. (Type A)

Children who answer "Yes" to Q.14 in Book I, but give the answer "I do not smoke now" to Q.16 in Book I are TRIERS. (Type B).

Children who answer "Yes" to Q.14 in Book I, "Yes" to Q.15 in Book I and tick a numerical answer, indicating the number of cigarettes a week they smoke now, to Q16 in Book I are SMOKERS. (Type C).

Length of Session

 We have two hours with each class. The team leader will give an introductory talk which should last about ten minutes.
 Half way through the session, there will be a short break of about 5 minutes. After the break the team leader will give another short talk lasting about 5 minutes. The children should be working for about 50 minutes during each half of the session.

- There are two types of questionnaire which the children complete:
 - (a) Essential Book I, Book II, Book III, Q V and
 (b) Reserve Book IV, Q VI.

During the first half of the session, the children will be the break they should start work on Book IV. If they finish Book II well before the break they should start work on Book IV. If they have not fimished Book II at the time of the break, they should stop work on it and go back to it if there is time at the end of the session.

At the break, incomplete Books should not be collected but should be let on the children's dealess. It is unlikely that any exhild will finish Book IV before the break, but if this does huped the before the break, but if this does huped collected after Book III has been completed. After the break, all children must commence work on Book III, and after completing that they should move on limediately to $Q \vee P$. Following $Q \vee$ the children should either return to any Books which were manner work for the first time on Book IV. It Boy finish Book IV, they should be given $Q \vee$ and asked to write a composition using one of the titles listed.

Classification of the children

- When a child has completed Book I and has commenced on Book II, look at this answers to Q.14-16 and determine whether he is a Non-smoker (Type A), Trier (Type B) or Smoker (Type C) [See Smoking Classification). Write A, B or C in the box on the front of Book I (in the middle of the page) and take Book I to the Checker's deak. (See Organisation of Classroom Work).
- 2. It will be the job of one member of the team (the Checker) to check that the smoking classification is correct and when she has done this she will tick the appropriate column on Form A, opposite the child's code number (the code numbers should be written on Form A white the children are working on Book II, As soon as all Book IF is have been collected and Form A is complete, the children's code numbers a Aboy will have his appropriate copy in the code number will be about the code number written on a Book III, a type B boy will have his code number written on a Book III, a type B boy will have his code number written on a Book III s.
- When all the code numbers have been transferred to the appropriate Book III's, the Books are arranged in numerical order so that their distribution is made easier. As soon as the

break commences, the Book III's are distributed and placed face down on the children's desiks, taking care to ensure that the code number on the Book III corresponds to the code number on the child's desik. This work must be completed well before the end of the break so that the children can commence filling in Book III at the beginning of the second half of the session.

Organisation of work in the classroom

The detailed organisation of work in the classroom is dependent upon conditions existing there, and will be decided by the team leader before the session commences. However, the following procedure has been found to work well in most schools, and should be used if possible.

- 1. Each team consists of the team leader and three or more assistants, one of whom is responsible for checking the completed questionnaires, (the Checker). Before the session commences, the team leader will have told each member of the team what her particular jobs will be. The team leader will also be responsible for organising the work in the most efficient way possible, and for maintaining discipline in the classroom.
- 2. The first thing the assistants will be required to do in the classroom is to lay out all the questionniers on a table. They will also pin or hold up the demonstration charts of the control of the
- 3. The class leader will have explained to the children that they should put up their hands when they come to the end of a Book, and when they have any problems or difficulties. Throughout the session it will be the assistant's job to go to children who put up their hands and answer their questions; or, if they come to the end of a Book to collect this from them and give them their next one.
- 4. When the class assistant collects one completed Book from the child, she should first of all make sure that the child has filled in his code number in the space allowed for it must be the control of the control

- 5. It may be necessary to help some of the slower children who are beginning to get behind with their questionnaires. If there is time these children should be assisted by writing down their answers for them; but in such cases it is timportant that answers are not suggested to the children. If the child is sharing difficulty in reading a question, it may be read to him, but its meaning must not be opicianed, under the children and the children are considered to the children and the children are considered to the children and the children are considered to the children are considered to the children are considered.
- 6. The above instruction is particularly important for Q V. Except for the occasional child who really cannot read, so help should be given with this questionnaire. Q V is the only questionnaire which is a test as such, and the children should be left to cope with it on their own. However, as with other questionnaires, they must try and answer every question and should not leave blanks. Incoming them guess with the orrect answer is if they are not sure about.

Checking procedure

The detailed procedure for classifying and checking the children's smoking behaviour has been dealt with in an earlier section. The following general points apply to the checking of all other questions.

- (a) One member of the team will be responsible for checking completed Books (the Checker) but the other assistants should help her, whenever they are not engaged in other work. With the exception of Questions 4 and 5, (Book I) it is not necessary when checking to read through the questions word by word. The assistant should simply check to see that every question has been answered in the required way. Where there is an omission or a question which has not been answered in the required way, a cross should be put by the right hand side of it. When there are five or six questionnaires with errors in them, they should be taken round to the children and the mistakes pointed out to them. While the child is making the corrections, if possible, the assistant should stand by him, and make sure that he completes them. If the child is genuinely unable to give an answer, he should write in "DON'T KNOW" by the question. However, "DON'T KNOW" is not permitted on Q V; for these questions, the children must always make an attempt to give an answer. The principal Checker will often be too busy to take the questionnaires back to the children. She will give the questionnaires that she has found to be in need of correction to an assistant, who will take them to the children for her.
- (b) When a Book has been completed correctly, it should be initialled on the front page (top right hand corner) either

by the Checker or the assistant who is helping her. The Checker will then write the class serial number in the space provided on the front page, and will place it in a large envelope marked "checker". Those Books which are separate consistent of the place in a separate cavedope marked in the season should be placed in a separate cavedope marked class serial number should be written on it. Completed Books should be despatched to "Advertising Assessment" using the addressed labels. Incomplete Books, and Dunsed Books should be despatched to a separate envelope to Pield Septrace and the separate of the series of th

N.B. Form D contains a list of all the children's I.Q. 's; it must be collected from the Headmaster by the team leader.

Smoking

When working in schools it is important that we accept any restrictions which are imposed upon members of the staff. In most schools teachers are supposed upon mode to the classrooms or in any other place where they are in continuous to the classrooms or in any other place where they are in continuous room or in you wish to smoke only do so in the staff common room or in some other place where the teachers themselves smoke.

A2,2 DIGEST OF POINTS TO BE MADE BY THE TEAM LEADER IN INTRODUCING THE SURVEY TO THE CHILDREN

A. General Introduction

- After introducing breadt, the Team Leader should continue, will all come provint the Government Social Survey, and our job is to do surveys about the way different people live and the opinions they have. Somethines we are interval people in the analysis of the opinions that you have somethines and the survey of the survey
- 2. The system of code numbers for children should be a refully explained and justified as part of the provisions for preserving anonymity. "Just to show you how confidential the really six, see're not even going to ask you for pay your range on your papers, so no one will know who has written them when we collect them at the end." Before the questions them—when we collect them at the end." Before the questions them—

selves are dealt with, the assurance of confidentiality and anonymity should be repeated. It should be emphasized that the survey is not concerned with individual answers and that parents and teachers will be told nothing. By way of illustration, do monstrate the type of envelope which will be sealed in with the answers inside and sent off to London.

3 Also in this section, the children should be told to write down on the front page of each schedule the name of their school and form, besides their code number. On the front of Book I they should also write the date.

B. Introduction to Questions

- 4 Great stress should be laid upon the fact that the survey cannot succeed unless every byo answers for himself "We want each person to give his own answers and nobody else's". This means that no talking or copying can be allowed. The point can be reinforced by showing that, since there are no "right" or "wrong" answers, copying is on benefit.
- 5 The children should be encouraged to put up their hands and query anything they cannot read or understand. The implication should be that their failure is due to the difficulty of the questionnaire rather than their own inadequacy.
- 6 Examples of each type of question should be demonstrated in turn, using the charts provided, and selected children should be called upon to give specimen answers. Attention should in every case be drawn to the relevant instructions as they will appear on the questionnaire.
- 7 In dealing with multiple choice questions of the type shown on Chart A, the necessity of reading through all the alternatives before answering should be emphasized. Remember to mention that in one case three ticks are required rather than one.
- 8 "Tick each one Yes or No" questions (Chart B), where an answer is required to each part of the question, should be contrasted with the types of questions already dealt with, in which only a limited number of ticks is required. The different columns for "Yes" can required. The different columns for "Yes" can yet a ring around Yes or No" forman mentioned.
- 9 Each child should now answer every question on the schodules he receives, except for a few "If Yes" oftons within particular questions. The children must therefore be urged to make some answer to every question and to omit tone. The point about raising queries could be restressed here and the children instructed to write in "Dort Honoy" in cases where they guild cannot decide what to answers. Enough these they guild cannot decide what to answers. Enough in the Social Class question (Book In. 16).

- 10 In dealing with attitude statement items, (Chart C) care should be taken to ensure that the children understand the distinction between e.g. "Agree" and "Agree strongly". Alternative formats, such as "I have never thought of this" etc. should be mentioned.
- 11 The "Image" items, of which examples are given on Charts D-E, present what is probably the most difficult technique for the children to grasp, so special stress should be laid on the following points:
 - (a) The necessity of avoiding the neutral category except in cases of genuine uncertainty.
 - (b) The fact that most people do have images of their real and ideal selves, though they may have to think a bit in order to make those images explicit.
 - (c) The contrast between the real and ideal selves. The questions look the same but are really different, because they are about two "different" people.

Care should be taken, in working through the examples, to show that whereas e.g. a tick in the left-hand box is correct for one person, a tick in the right-hand box is correct for another. (To mention only one possible answer might suggest to some children that we expect one type of answer rather than another on "image" tiems.)

C. Commencement of schedules

- 12 A check should be made to see that each child has a suitable writing instrument and pencils should be issued where necessary.
- 13 The children should be instructed to raise their hands when they have completed a schedule.
- 14 Before the children go out for break ask them to note where they are sitting and who is on either side of them so that they come back to exactly the same seat after break.
 - D. Introduction to post-break session
- 15 Before restarting, a check should be made to ensure that all the children have returned and are sitting in the same places as before.
- 16 The children should be told in a matter-of-fact way that there will be some questions about smoking. The impression should be conveyed that we expect some of them to be amokers that without larying too heavy a stress on this). On the other hand, it should be strongly stressed that we want non-smokers to answer all questions as well as amokers. It is just as important for us to have the opinious of those who don't smoke as it is for us to home the opinious of those who don't smoke as it is for us to home the opinious of those who don't smoke as it is for us to home the opinious of those who do smoke".

- 17 Confidentiality and anonymity should be restressed; frankness should be encouraged but boasting discouraged.
- 18 Examples of the relevant types of question (i.e. all except open-ended) should be reviewed at this point if any difficulties have come up during the pre-break session. Charte F and Q, dealing with the images of the smoker and non-ambder, should always be dealt with first. (There are reasons for this). The amount of reteretation of instructions which is required should be gauged according to the brightness of the class, but points should be made corresponding to 11 (b, b) and given both to the "def-hand" and to the "right-hand" answers in working through the examples.
- 19 A special reference should be made to QV (the Vocabulary test). The children should be told that this is more like a school test than the other questions and that we want them to answer every single question. "Don't know" should not be used and the children should guess if they are not sure what the answer is.
- 20 Before they begin writing again, the children should be reminded to write their code numbers and other requisite details on the front of each questionnaire. Queries should be invited and dealt with and the instruction to ask about any difficulties repeated. Finally, a further warning should be given about talking and copying.
- 21 The children should be thanked for their co-operation before being dismissed at the end of the session.

General Responsibilities

- 22 R is the responsibility of the team leader to organise the work in such a way that the children can work with maximum efficiency. She must also tell each member of the team before the session commences, what her particular job will be. See "Organisation of work in the classroom" in General Instructions.
- 23 School children are used to being disciplined and expect an authoritative names from the person who is taking the role of the form teacher. The team leader should establish firm control over the children at the commencement of the session. If the children are permitted to talk to each other the quality of their answers will deteriorate.
- 24 Either before or after the session Form D which contains the children's I.Q's must be collected from the Headmaster. In some schools Form D will not have been completed by the Head and information about this must be obtained from Field Service.

- 25 The team leader should ensure that all documents are despatched at the end of the session in the right envelopes to the right address (see "Organisation of work in the classroom" Paragraph 7b in the General Instructions).
- 26 Before leaving the school thank the Headmaster for his cooperation.

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Academic Ability Rating

Rating	Code
Grammar school or equivalent ability level	1
IQ = 121+	
Above average – possible Grammar school place	2
IQ = 106-120	
Average	3
IQ = 95-105	
Below average and possibly backward	4
IQ = 85-94	
Dull and definitely backward	5
IQ = 84	
Not available	0

APPENDIX 3

Questionnaires

A3.1 Book I General background information to determine whether the child smokes or not.

A3.2 Book II Attitudes - not on smoking.

A3.3 Book III Book III, (smoking questions for boys who said they had never smoked a clararetle - non-smokers), Book III, (smoking questions for boys who said they had stopped smoking - triers), and Book III₀ (smoking questions for boys who said they smoked cigarettes - smokers).

A3.4 Q V Vocabulary Test.

- Notes (1) For details of the procedure adopted for administering the questionnaires see Appendix 2.1.
 - (2) The three versions of Book III were completed by non-smokers, triers, and smokers respectively as defined above. Each group was given the appropriate questionnaire on the basis of their answers to the question on smoking copering their answers to the question on smoking copering their answers to the question on smoking copering their answers to the same selves were not aware that there were different versions of Book III as they looked indeutical. It should be noted that the above definitions of smokers, triers and non-smokers are not the same as those their complete their properties. The complete their properties of the complete their properties of the complete their properties. The complete their properties of the complete their properties of the complete their properties. The complete their properties of the complete their properties of the complete their properties of the complete their properties. The complete their properties of the complete their properties of the complete their properties. The complete their properties of the complete their properties of the complete their properties. The complete their properties of the complete their properties of the complete their properties of the complete their properties. The complete their properties of the complete their properties of the complete their properties.
 - (3) The reserve questionnaire (Book IV) and the essay titles (Q VI), referred to in Appendix 2.1, are not shown in this appendix as the responses to them were not analysed for the purposes of this report.
 - (4) The vocabulary test (Q V) was the synonym definition section of the Mill Hill Vocabulary Scale (Set A, Form 2, Junior). Raven (1965).

	LEAVE BLANK
Code Number	
Full Name of School	
Form	

GOVERNMENT SOCIAL SURVEY BOOK I

LEAVE BLANK

Describe carefully the sort of work he does.

Here are some questions about the things you like to do in your spare time.

three

you lik

Remember that we do not know who you are, and that your answers are confidential.

Please be as frank and truthful as you can - but don't boast!

6 Below is a list of things that children sometimes do in their spare time after school. Which three things do you like doing best in the time after school?

Sports and games	
Cycling with a group of boys	
Going to the pictures .	- 1
Going dancing	П
Reading, writing or drawing	1
Woodwork or making models and other things	1
e Watching T. V. or listening to the radio	1
Gardening or care of pets	1
Going to coffee bars	1
Going to youth clube	н
Going out with garls	
Chatting to a group of friends	н
and the Broad or Minister	

Do you spend most of your spare time at home or do you mostly go out?

(Tick one)	Mostly out
	Half and half
	-

- Do you like spending time on your own or do you prefer to be with other children?

			LEAVE
		TICK	BLANK
		HERE	
9.	Do you often fe	rel bored because you have nothing pare time?	1215
		I am often bored	(1)
	(Tick one)	1 am semetimes bored	(2)
		1 am seldom or never bored	(2)
10.	-	r your Form or for your School	1216
	or Club in any	sport?	1
		Yes	(1)
		No	(8)
11.	When did you	last go to the pictures?	1217
		terday or the day before	(1)
		he last seven days	(3)
		od two weeks ago	(3)
		ween two weeks and one month ago.	(4)
		re than one month ago	(5)
		ever go	(6)
			1
			1219
18.	Which do you		10.10
	pro	yead a story or see a film or T. V. agramme about young people at school	(1)
	(Tick pro	read a story or see a film or T. V. ogramme about young people in their tre time	(2)
	To	read a story or see a film or T V. gramme about young people at work	(1)
13,	With whom de	o you mostly go out?	1219
		With a boy friend	(1)
		With a group of boys	(8)
	(Tick one)	With a group of both boys and girls	(3)
		Atone	{4}
		With a girl friend	(5)
		With adults	(6)
		3,	

		LEAVE
		BLANK
14.	Some children smoke cigarettes while they are TICK still at school.	
	Have you ever tried smoking a cigarette?	1220
	Yes	(1)
	No	(2)
15.	Have you smoked more than one cigarette?	1221
	Yes	(1)
	No	(S)
16	How many cigarettes do you smoke now?	1222
	I do not smoke now	(1)
	Less than 1 each week	(5)
	Between 1 and 4 each week	(3)
	(Tick one) Between 10 and 14 and week	(4)
		(5)
	Between 15 and 19 cach week	(6)
	Between 25 and 29 each week	(7)
	Between 30 and 39 cach week	(8)
	40 or more each week	(9)
		(10)
17.	What social class do you think you and your	
	family belong to?	1223
	Upper mobile class	(1)
	(Tick one) Middle class	(2)
	Working class	(3)
	No particular class	(4)
	Den't know,	(5)
18.	a) How many children are there in your	1224
	form at school?	
	b) What position would you say you hold in your form in general, that is, taking account of all the school subjects?	1225
	In the top five	(1)
	(Tick one) In the top ten	(2)
	Just above the middle .	(3)
	Below the middle	(4)
	1.	

		BLANG
a) How much money week that you can you like?	do you have altogether each TICK save or spead in any way HERE	1226
yau tike -	Under 2 shillings	(1)
	Between 2 shillings and 3 and elevenpence	(2)
	Between 6 shillings and 5 and elevempence	(5)
	9 and elevenpence	(4)
(Tick one)	Between 10 shillings and 14 and elevenpence	(5)
	Between 15 shillings and 19 and elevenpence	(6)
	Between 20 shillings and 29 and elevenpence	(7)
	30 shillings or more	(6)
b) (i) Do you save	any of this money?	1227
a) (t) Do you save	Yes	(1)
	No	(2)
(ii) If Yes W	hat are you saving up for?	1228
ON MARKE	To buy records	(1)
	To buy a record player, or tape recorder or radio	(8)
	To buy a musical	(3)
	To buy clothes	(4)
	To buy sports equipment	(6)
(Tick gae only)	To buy books	(6)
	To buy a bicycle or bicycle spare parts	(7)
	For a holiday .	(8)
	l am not saving up for anything in particular	(9)
	I am saving up for something else	(10)
	zomethang else	(10)
Do you do any paid ;		-

		BLANK
21. Are y	ou usually broke at the end of the week? HERE	1230
	Yes	(1)
	No	(2)
		(2)
22. If you would	had enough money in which of these ways you like to spend it?	
	a) Bur records	
		1231
	recorder or radio	1232
(Tick each	c) Buy a musical instrument	1233
One cither	d) Buy clothes	1234
Yes or No)	e) Buy sports equipment	1215
	f) Buy books	1236
	g) Buy cigarettes	1237
	h) Buy sweets or ice cream	1238
	i) Buy bicycle or bicycle	12.70
	Spare parts	1239
	j) Take a holiday or travel	1240
	(1) (2)	
() () Do	you ever (cel pervous or rense? YICK	1241
	HERE	1241
	Often	(1)
	(France) Sometimes	(2)
	Hardly ever .	(3)
		(4)
b) Whe	n you co feel pervous or to me do you do of these things to help you to relax?	
	YES NO	
	a) lite my nails .	1242
lick each one	b) Chew gum	1243
ther Yes or !		1244
	d) Smoke a cigarette	1245
	e) Chew a pencil	1246
		1410
	(1) (2)	

LEAVE BLANK	

Code Number ______

GOVERNMENT SOCIAL SURVEY

LEAVE
BLANK

You have already to Now we would like to	d us about 12 know what	se things you o kind of person	to in your you are.	spare time	
Here is a practice q	sestion about	the kind of p	erson you	are.	
Dure to take rask				Want to be safe	
If you are the kind of (like this 🗸) in the b	person who ax as the LE	dares to take	risks, pu	a tick	
If you are the kind of box on the RIGHT.	person who	wants to be a	afe, put a	tick in the	
Most people know wh But if you really can tick in the box in the		two kinds of p	erson they reom you	are. are, put a	
That question was ju- questions in the box of	et for practic	te. Now put t for the kind	s tick by e of person	ach of these you are.	
A 1. Good at school work				Not so good at school work	2111
A 2. Interested in girls				Not interested in girls	2112
A 3. Good at sports				Not good at sports	2113
A 4. Gentle				Tough	2114
A 5. Often disabedses				Usually do as I am told	2115
A 6. Like to be alone				Lake to be with a group	2116
A 7. Good fighter				Not much of a fighter	2117
A. S. Try to act 'big'				Act my own age	2118
A 9. Plan and think shead				Carnot wait, wast everything at once	2119
	(1)	(2)	(3)		
	1.				

					BLANS
Still thinking about the	kind of per	son you are.	ud.		
A 10. Have many friends				Have one or two friends	2120
A 11. Scruffy				Neat and clean	2121
A 12. A bit of a bully				Do not bully	2182
A 13. Like to do forbidden things				Do not do forbidden thang	2123
A 14. Want to be grown-up				Do not yet want to be grown-up	2124
A 15. Sometimes swea	r			Do not swear	2125
A 16. Spend my money				Save my money	2126
A 17. Often successful				Often a failure	2127
A 18. Try to attract				De not try to	2128

(3)

Tough

2129

(1)

A 19. A bit of a

STOP:

The next thing we would like you to do jooks rather like the thing you have just done. But it as different so READ THE INSTRUCTIONS VERY CAREFULLY.

READ THIS CAREFULLY

You have told us about the kind of person you really are. Here is something different. Think now about

THE KIND OF PERSON YOU WOULD LIKE TO BE.

We want you to answer some of the same questions as before. But this time we are asking you shout the kind of newson you would tike to be. This may not be the same as the kind of person you would rake are. So think carefully again about each question and then put a tick in the box which is right for the kind of person you would like to be.

В		Good at school work				Not so good at school work	2130
В	2.	Interested in girls				Not interested in girls	2131
В	3.	Good at sports				Not good at sports	2132
в	4.	Gentle				Tough	2133
В	5.	Often dinobedient				Usually do as I am told	2134
В	6.	Like to be alone				Like to be with a group	2135
в	7.	Good fighter				Not much of a lighter	2136
В	8.	Try to act				Act my own age	2137
В	9.	Plan and think ahend				Cannot wast, want everything at once	8136
В	10.	Have many friends				Have one or two friends	2139
В	11.	Seruffy				Nest and clean	2140
			(1)	(2)	(3)		
				4			

						LEAVE BLANK
Still	thinking of the kin	of of person	you would like	e to be		
						1
B 12.	A bit of a bully				Do not bully	2141
	Like to do forbidden things				Do not do forbidden things	2142
	Want to be grown-up				Do not yet want to be grown-up	2143
15.	Sometimes swear				Do not swear	2144
3 16.	Spend my money				Save my money	2.45
3.17.	Often successful				Often a failure	2146
18.	Try to attract girls				Do not try to attract girls	2147
19	A bit of a cissy				Tough	2148
		(1)	(2)	(3)	1	

Here is a list of things which children sometimes do, or think of doing. Read each one, and then put a tick (\checkmark) in the column which is right for you.

æ

Remember that your answers are CONFIDENTIAL, so be as truthful as you can but don't boast.

			There never thought about this	of doing this but I have NOT done it.	I have acousty deen this		
С	1.	Make fun of policemen					2149
С	2.	Get into fights					2150
С	3.	Refuse to be told what					2151
С	4.	Lose my temper when asked to run an errand.					2152
С	5.	Hurt my parents' feelings] [2153
С	6.	Argue back at a teacher				П	2154
С	7.	Break a window for fun				П	2155
С	8.	Not doing the hest I can in my school work					2156
С	9.	Go around with a tough gang	к		_	41	2157
С	10.	Refuse to obey the prefects					2158
G	11.	Break into a building			_	11	215
С	12.	Pinch something				-11	214
С	13.	Go out drinking beer or spirits with friends				11	216
С	14.	Go out with girls				41	216
С	15.	Dress up to look older than I am					216
С	16.	Choose all my own clothes				-	216
С	17.	Drive a car					216

I	BLANK
ĺ	
ľ	2166
l	2167
	2168

			rever thought about this	but I have NOT done iz	sensity deer this	
С	18.	Go to coffee bars				21
С	19.	Go to a public dance hall				210
С	20.	Try to see a film with an "X" certificate				211
С	21.	Read a forbidden book				216
С	22-	Stay out late with a group of older boys or girls				217
						L.

These of dear the These

LEAVE BLANK

2212

2215 2216 2217

Here is a list of people.

8

Some of them you may admire very much, others you may not care about; or perhaps you may distike them, or you may never have

Please read each name, and then put a tick in the column that is right for you.

) admire him a lot	Dan't care much about him	I dan't like hizi	I dea't leaw much about him
D a	1.	Max Bygraves				
D a)	2.	Ringo Stary . ;				
D a)	3.	Duke of Edinburgh				
Da)	4.	The Rolling Stones				
Da)	5.	Cliff Michelmore				
Da}	6.	Harold Walson				
D a	7.	Sir Winston Churchill .				
			(1)	(8)	{s}	(4)

D b) Write down the name of one other person whom you particularly admire

On this page you will find a list of things that may happen to you OFTEN, may happen to you SOMETIMES, or may NEVER have happened to you.

Please read every question, and then put a tick (\checkmark) to show which answer is right for you.

It happens to me:-						
How aften does it happen that you:		Often	Sametimus	Newer .		
Ε	1.	Are wrongly accused of something?				2218
E	2.	Get punished at school? .				2219
Σ	3.	Are forced to stay in after school?				2220
Ε	4.	Feel you don't have enough money?				1555
Ε	5.	Cannot get aweets when you want them?				2222
Ε	6.	Don't know what to do with yourself?				2223
Ε	7.	Feel your parents don't understand you?				2224
Ε	8.	Peel there are too many rules and regulations?				2225
Ε	9.	Peel you can't keep up with the others?				2226
Ε	10.	Cannot do your school work as well as most others?				2227
Ξ	11.	Feel that most things are too difficult for you?				2228
						_

(1) (2) (3)

Please answer the following questions by putting a <u>ring</u> round the words YES or NO, like this:						
			(No			
	P	1.	Do your nerves often feel on edge?	Yes	No	2229
	F	2.	Do you often have an upset stomach?	Yes	No	2230
	r	3.	Do people say you are highly strung or nervous?	Yes	No	2231
	F	4.	Do you often feel you can't sit still?	Yes	No	2252
	y	5.	Do you often have headaches?	Yes	No	2233
	F	6.	Do you often feel as if you want to scream?	Yes	No	2234
	r	7.	Does your skin often break out in a rash?	Yes	No	2235
	F	8.	Do you shiver sometimes, even in warm weather?	Yes	No	2236
	p	9.	Do you feel you want to chew or suck something most of the tume?	Yes	No	2237
	F	10.	Do you find it difficult to relax?	Yes	No	2258
				(1)	(2)	

People have different class about many thing. Here is a list of mean that man people believes. Now whatever with some of them and disagree with others. Sometimes you will consider the other times you will disagree arrangin. Now and then you may determine the man of the man of the control of

		Strang); Agree	Agree	Dicertain	Disagree	Strongly Disagree	
G 1.	Parents should take more interest in the doings of their children						2239
G 2.	A boy who plays truant from school should be severely pumshed						2240
G 3.	I am getting very fed up with school						2241
G 4.	If I want a thing, I enjoy saving up and waiting to get it						2242
G 5.	I want to grow up as quickly as possible						2243
G 6.	London is the capital of Holland						2244
O 7.	I want to be bug and tough .						2245
G 8.	A boy who tells the leacher a fib to keep out of trouble should be severely punished.						2246
G 9.	If I have some money, I like to spend it right away						2247
G 10.	Somebody is always after you to keep you from having fun						2248
G 11.	Sometimes I just want to leagh at all the things that grown-ups first about						2249
G 12.	When I grow up I don't want to work for someone clas, I want to be my own boss						2250
		(1)	(2)	(3)	(4)	(5)	

LEAVE BLANK

	Strongly Agree	Agus	Uncertain	Disagree	Strongly Delegree	
G 13. Adults never underet						2251
G 14 I am quite happy to b school and not yet grown-up						2252
G 15. It's nicer to wait and up for something the have it right away	n to					2253
G 16. Boys like me are qui interested in girls.	ite					2254
G IT A boy who copies for some-one clie in a school-test should b severely punished.						2255
O 18. I very much want to start earning some money soon						2256
G 19. When I grow up I wm be different, not like parents.	e my					2257
	(1)	(r) (3)	(4	(1)	

	LEAVE BLANK
Code Number	
Full Name of School	

GOVERNMENT SOCIAL SURVEY BOOK III

first cigar	Younger than 5	LEAVE BLANK 3162 (1) (2) (3) (4) (6) (6) (6) (9) (10) (11) (12)
	I bought it at a shop	(1)
	I was given it by my father or mother	(3)
	I was given it by my brother or sister	(3)
(Tick one	1 was given it by a grown-up (not my father or mothed)	(4)
only)	I was given it by a friend	(5)
	1 got it from a slot machine	(6)
	1 found it or took it	(7)
	I got it some other way	(8)
	454	3164
1 c) Why did	1 wanted to know what smoking was like	(1)
	I was dured to smoke	(2)
(Tick one only)	I was showing off	(3)
omyj	I wanted to be like my fr ends who smoked.	(4)
1 d) Did it m	ake you feel sick or disay?	3165
	Yes	(1)
	No	(2)
Dece questions were by tops who scaled his abo had given op wook		DIAL
		201.61

			BLANK
1 +)	(i) Why did yo for which o	u stop smoking - TRUE FALSE f these reasons?	
		1. I didn't like smoking	3166
		2. My parents didn't like me amoking	3167
		3. I thought emoking cost too much	3168
	(Tick each	4. I thought I might get lung cencer	3169
	one either True or Felse)	5. I thought smoking was bed for my health	3170
		6. I thought smaking was a dirty habit	3171
		7. I thought I wouldn't be fit for sports	3172
		8. I wanted to prove that I could stop	3173
		(1) (2)	
	(ii) Which of th	e above reasons was the tant for you?	

3174

E. S. Their distributa name seasured only by boys now had given up moking

(ii)

Write its number here

	amoke new? TRUE FALSE	
	Because my friends smoke	324
	Because I enjoy smoking	325
(Tick each one	Because 1 can't give up	325
either True or False)	Because smoking calms me down	325
	Because smoking makes me feel big	325
	1 smoke for some other reason	32.5
	(1) (2)	
2 b) Does amok	TICK ting still make you feel sick or dissy? HERE	325
	Yes	(1
	No	(2
2 c) Are the cu tipped or t	garettee you smoke usually mlipped? They are tipped They are untipped	(1
2 d) How, in w	hat way, do you <u>usually</u> get your ?	32
	I buy them at a shop	(:
	I get them from my father or mother	(;
	or mother	(
(Tick one only)	or mother 1 get them from my brother or sister	
	or mother	
	or mother 1 get them from my brother or asster 1 get them from a grown-up (not my father or mother)	0
	or mother 1 get them from my brother or satter 1 get them from a grown-up (not my father or mother) I get them from friends	0

LEAVE

K. 3. Quantions Exi to 21) were squeezed anity to boys with / clief

2 +)	How much money do yo cigarettes such week?	n usually spend on HERE	3258
		Under 2 shillings	(1)
		Between 2 shillings and	
		2 and elevenpence	(2)
		3 and elevenpence	(3)
	(Tick one)	Between 4 shillings and 5 and elevengence	(4)
		Between 6 shillings and 9 and elevenpence	(5)
		Between 10 shillings and 14 and elevenpence	(6)
		15 shillings or more	(7)
		I don't spend any money	100
		on cigarettes	(8)
			<u> </u>
2 1)	When do you smoke?	YES NO	
	1.	At parties	3259
	2.	At the pictures .	3260
	1.	In coffee bars	3261
	4.	In dance halls	3262
	5.	At bowling alleys.	3263
	(Tick each 6.	In parks	3264
	Yes or No) 7.	In the country	3265
	8.	In the street	3266
	9.	At home	3267
	10.	In a friend's home	3268
	11.	In an empty building	3269
	12.	When I feel bored .	3270
	13.	When I am nervous .	3271
	14.	When I am offered a eighrette	3272
	15.	When I want to concentrate	
			3273
		(1) (2)	

			LEAVE BLANK
2 g)	Would you say you other children or w	maked most when you are with HERE hen you are on your own?	3274
		Only with other children	(1)
		More with other children	(2)
	(Tick one)	About the same	(2)
		More on my own	(4)
		Only on my own	(5)
2 h)	When you smoke, d	io you usually breathe the smoke r lungs?	3275
		Yes	(1)
		No	(2)
2 i)	(i) Do you want to mean to go on	stop emoking or do you	3276
	mean to go on	Want to stop	(1)
		Mean to go on	(2)
	(ii) If you want to		3277
		TRUE FALSE	(1)
		I don't like smoking My parents don't like	(4)
		me smoking	(2)
		3. I think emoking costs too much	(5)
	(Tick each one either True or False)	4. I think I might get lung cancer	(4)
		5. I think emoking is bad for my health.	(5)
		6. I think smoking is a durty habit	(6)
		7. I think I won't be fit for sports	(7)
		8. I want to prove that I can stop	(8)
	(iii) Which of the important for	above reasons is most c you?	
		Write its number here	3278
		(iv)	
			100

				-
A	1.	How many older broth have altogether who as	moke? HERE	3111
			None	{1}
			1	(2)
			2	(3)
			3	(4)
			4	(5)
			5	(6)
			More than 5.	(7)
A	2.	Are there usually pack tobacco lying around in	ets of cigarettes or 1 your home?	3212
			Yes Often	(n)
		(Tick one)	Yes	
			Sometimes. No	(2)
				(3)
A	3.			3113
		(Tick one only)	Both my parents smoke	(1)
			Only my father smokes	(2)
			Only my mother smokes.	(3)
			Neither of my parents	
			smokes	(4)
A	4.	If you smoked a cigarett parents what would they	te in front of your say or do?	3114
			They would punish me and tell me not to smoke	(1)
	[Tic	ik ane)	They would just tell me not to smoke	(2)
			They would do nothing	(3)
				4-7

LEAVE

150.000

N.J. These questions and all the remaining questions in Best III were account up all the large.

		BLANK
		- Annual
A 5. a) What do you think is the right age for a boy to start smoking?	HERE	3115
	13 or under .	(1)
	14	(2)
	15	(3)
	16	(4)
(Tick one)	17	(5)
	18	(6)
	19	(7)
	20	(8)
	21 or over .	(9)
	NEVER	(10)
b) And for a gurl?		3116
	13 or under-	(1)
	16	(2)
	15	(3)
	16	(4)
(Tick one)	17	(5)
	18	(6)
	19	(7)
	20	(n)
	21 or over .	(9)
	NEVER	(10)
A 6 What about your friends - how many of them smoke?		3117
	All of them	(1)
	Most buy not all	(2)
	Hatf and half	(3)
	Only a few	(4)
	None of them smoke	(5)
A 7 a) Have you ever heard of a discoun- called lung cancer?		3118
	Yes	(1)
	No	(2)
2.		

VE NGC

1

			BLANK
7 b) Would you say lung cancer?	these thangs cause YES	NO	
	Car exhausts		3119
	Dirt in the air from		
(Tuck <u>each</u> one either	factories		3120
Yes or No)	Smoking cigarettes		3122
	- —		3126
	(1)	(2)	
A. How did you co	me to hear about YES	NO	
lung cancer?	Did you -		
a)	read about it?	1	3123
b)	hear people talk about		3124
(Tick each c)	see a film about it?		3125
One either Yes or No) d)	see advertisements		3126
a)	see a T. V. programme		3127
0	hear a doctor or nurse give a talk about it?		3128
g)	hear about it in a lesson at school?	_	3129
	(1)	(2)	
Don't forget to answer	r all these questions KE OR NOT.		
	that you yourself could from smoking?	TICK HERE	3130
	Yes		(1)
	No		(2)

LEAVE

		BLANK
10 a) Does the	danger of lung cancer put you off smoking?	3131
	Yes :	(1)
	No	(2)
b) If the da emaking	nger of lung cancer does NOT put you off Why is that?	
	TRUE FALSE	1
	1) I don't worry shout it	3132
	2) I am too young to get lung	
(Tick each	Cancer	3133
one either	3) Non-smokers get lung cancer	3134
False)	4) Very few emokers get lung	3135
	5) If you are going to get hing	
	cancer smoking won't make	3136
	any difference	3136
	6) It hasn't been proved that smoking causes lung cancer	3137
	7) I don't smoke enough to	1
	get lung canter	3138
	8) 1 don't breathe the smoke	
	right down into my lungs	3139
	9) I enjoy smoking	3140
	10) I can't stop smoking	3141
11a) Do you b	elieve that smoking can affect your TICK any other way?	3148
Dekilli III	Yes	m
	No · ·	(2)
		1-1
h) If Yes	How can smoking affect your health?	1
	TRUE FALSE	
	1) It stops you growing	3143
	2) It weakens you · · · ·	3164
	3) It makes you catch coughs	3165
(Tick each	and colds more easily	3143
one either	4) It makes your breathing difficult	3146
True or Fals	6) S) It damages your mouth and	
	threat	3147
	6) It damages your teeth	3148
	7) It gives you had breath .	3149
		-

			LEAVE
12.		that there is too much or too here g made about the dangers of	3150
		Too much fuse	(1)
	(Tick one)	Too little fuss	(2)
		About the right amount	(3)

								LEAVE BLANK
	13.	age yes	are now,	n-up and had o and they wan would you do?	ted to smake			3151
		(Tick o	na)	I would allow	them to sm	oke .	_	(1)
				I would not a	Sow st	-	-	(2)
	14.	said th	at smokin	g to bad for yo y may or not?		have		3152
				I believe the			_	(1)
		(Tick o	one)	I don't believ	e them		_ 1	(2)
				I am not our			-	(2)
L	15 a)	Have y	ou seen a	ny advertisem	ents which t	ry	ĺ	3153
		to stop	people s:	moking?	1	Cet -	_	(1)
						No	-	(8)
	b)	comics	OF DEDICA	ny advertisem s for children s children smo	and teenage			3154
						Tet		(1)
						No		(2)
	c)	m		k these advert comics or po				3155
					Yes defin	ntely	_	(1)
					Yes perh	aps	_	(2)
					No		-	(3)
		(iii) <u>16</u>	you don't	think there at in smoking	Why se that	s will		
					7	RUE PAL	SE.	
			ever th	e eksleren ma inde abost emo se advertisemo	sking, what-		_	3156
	(Tue	k each	not go childr	se the adverti sed enough to r en step smake	nake ng		_	3157
	Tru Fals		native	se children do of the advert	is ements		_	3158
			smak	ise children to ing once they !	tave started			3159
			the ac	ise children 6 (vertierments				3160
			smuck	are telling chales to a past makes to a more	year smoke	(1)	2)	3161
								Disker.

You have told us a hit shout yourself, now we would like you to tell us about some different kinds of hops you know. First, think shout

THE KIND OF BOYS WHO SMOKE CIGARETTES

Don't often go

to the cinema

Here is a practice question shout hoys who smoke cigarettes.

Often go to the cinema

If you tanks that days was smose eigeretted once go to the cinema, but a tick (like that,") in the bot on the LEFT. If you think that hops who smoke eigeretter dear often go to the cinema, but a tick in the box on the RIGHT. Most people find it quite easy to choose on of these two narwers. But if you really cannot decide which answer to give, but a tick in the MODIA.									
That question was just more questions of the Put a tick by each of t smoke cigarettes.	same kind	shout hove who	smoke cij	carettes.					
B 1. Good at school work				Not so good at school work	3211				
B 2. Interested in girls				Not interested in girls	3212				
B 3. Good at sports				Not good at sports	32.13				
B 4. Gentle				Tough	3214				
B 5. Often disobedient				Usually do as I am told	3215				
B 6. Like to be alone				Like to be with a group	3216				
B 7. Good fighter				Not much of a fighter	3217				
B 8. Try to act 'hig'				Act my own age	3218				
B 9. Plan and think ahead				Cannot wait, want everything at once	3219				
B 10. Have many friends				Have one or two friends	5220				
5 11. Scruffy (1) (2) (3) Neat and clean									
		6.							

			BLANK
"Still thunking about the kind of	bays who smoke	cigarettes"	
B 12. A bit of a bully		Do not bully	3222
B 13. Like to do forbidden things		Do not do forbidden things	3223
5 14. Want to be grown-up		Do not yet want to be grown-up	3224
B 15. Sometimes swear		Do not swear	3225
B 16. Spend my money		Save my money	3226
p 17. Often successful		Often a failure	3227
B 18. Try to attract girls		Do not try to attract girls	3228
B 19. A bit of a cissy		Tough	3229
(1)	(2)	(3)	
	7.		

STOP:

The next thing we would like you to do looks rather like the thing you have just done. But it is different to READ THE INSTRUCTIONS VERY CAREFULLY.

la, is, ter

READ THIS CAREFULLY

You have answered some questions about boys who smoke. Now think about a different kind of boy. Think about

THE KIND OF BOYS WHO DO NOT SMOKE CIGARETTES

We want you to answer the same questions as before. But this time your answers may be different, because we are asking you about boys who do NOT smoke expareties. So think carefully again about each question and then put a tick in the box which is right for boys who do NOT smoke expareties.

С	1.	Good at school work				Not so good at school work	3230
С	2.	Interested in girls				Not interested in girls	3231
С	3.	Good at sports				Not good at sports	3232
С	4.	Gentle				Tough	3233
С	5.	Often disobedient				Usually do as I am told	3234
С	6.	Like to be alone				Like to be with a group	3235
С	7.	Good fighter				Not much of a fighter	3236
С	8.	Try to act				Act my own age	3237
С	9.	Plan and think ahead				Cannot wait, want everythin at once	3238
С	10.	Have many friends				Have one or two friends	3239
С	11.	Scruffy				Neat and clean	3240
С	18.	A bit of a bully				Do not bully	3241
			(1)	(2)	(3)		

						BLANK
<u>"811</u> "	I thinking about th	e kind of boy	s who do NOT	emoke ci	garettes"	
C 13.	Like to do forbodden things				Do not do forbidden (hings	3242
C 14.	Want to be grown-up				Do not yet want to be grown-up	3243
C 15.	Sometimes sweat				Do not swear-	3244
C 16.	Speed my money				Save my money	3245
C 17,	Often successful				Often a failure	3246
C 18.	Try to attract girls				Do not try to attract girls	3247
C 19.	A bit of a ciesy	(1)	(2)	(5)	Tough	3248

10.

People have different ideas about many things. Here is a list of them and disagre with some people believe in. You will agree, with some off them and disagree with others. Sometimes you will agree strongly and at other times you will disagree strongly. Now and then you may be unerginal whether you agree or drangers. He adeed to these sentences carefully, then put a tick by it in the column which is right for yeas.

						1
	Strongly Agree	yber	Uncertain	Diangree	Strongly Disagree	
D (1) Smoking is only dangerous to older people						3311
D 2. Smoking is a dirty habit	-					3312
D 3. Smoking makes you feel on top of the world	Г					3313
D 4. Smoking is bad for you	-					3314
D 5. Smoking is only dangerous if you have been smoking for many years						3315
D 6. Smoking gives your breath a had smell	Г					3316
D 7. Smoking helps you to feel more at case in a group						3317
D 8. Smoking is very enjoyable						3318
D 9. Smoking helps you to feel more at ease						3319
D 10. Smoking stains your teeth				_	_	3520
D 11. There is nothing wrong with smoking · · · · ·	L					3321
D 12. Smoking can belp people when they feel nervous or embarrassed						3322
D 13. All cigarette slot machines should be taken away · · ·						3323
D 14. Boys who are caught smoking should be punished much more than they are						3324
	(1)	(3] {3]	(4	(5)	
	11.					
						1

AVE	

		Strengty Agree	Agres	Uncertain	Disagree	Strongly Diangree	
D 15.	Smoking is only dangerous if you smoke a lot						3325
D 16.	Smoking stains your teeth				_	Н	3326
D 17.	Others are often trying to encourage me to smoke						3327
D 18.	I don't like girls who			_			3328
D 19.	Most of the boys in my class have a smoke now and again						3329
D 20,	Girls who smoke go out with boys more often						3330
D 21.	People who smoke are trapped, they can never give it up						3331
D 22.	Boys who smoke are usually more friendly						3332
D 23.	All my best friends smoke sometimes						3333
D 24.	Boys who smoke are more adventurous						3334
D 25.	It upsets me to see how helpless grown-ups are when they try to give up smoking						3335
D 26.	Smokers just think that they are more grown-up, but they aren't really						3336
D 27.	If you don't smoke, other boys make fun of you						3337
D 28.	Smoking is a very manly thing to do						3338
D 29.	Boys who smoke can look after themselves						3339
		(1)	(8)	(3)	(4)	(5)	

						LEAVE BLANK
	Sramply Agree	Agras	Escerade	Diagros	Strengty Disagree	
e go out : often						3340
ere is a roup of o smoke						3341
oke, you man						3342
e a boy rette		Г			П	7343
stricter rs, about to smoke						3344
r smoke						3345
y elder er gives						3346
ke because Il attract						3347
e very t allowing						3348
s cigarettes,						3349
e of my ne a cigarette						3350
lo not seem moke in						3351
re stricter ts about not smoke						3352

(3) (4)

1

If parents and teachers smake themselves, the should not try to stop

D 30. Boys who smok In my class, th boys who like t in secret . . If you don't sm D 32. Girls like to se My parents are Nice girls neve Sometimes, m me a cigarette Girls only smo the boys. . D 38. My parents are me to smoke. D 40. Sometimes, or D 61. The teachers of

		Strengtly Agree	Agres	Vocestalo	Diagras	Strengty Disagree	
D 44.	I never seem to notice advertisements for cigarettes						3354
D 45.	It is all right for young people to smoke, because they don't get cancer						3355
D 46.	People try to atop us from smoking because they are hossy and nossy						3356
D 47.	Punishing children for smoking is useless						3357
D 48,	I love to see some of the cigarette advertisements						3358
D 49.	Boys who don't smoke have hetter self-control						3359
D 50.	It's only the rough hoys who start smoking while they are still at school						3360
D 51.	I cannot understand why grown-ups smoke so much						3361
D 52	If you don't smake you can still be tough and independent						3362
D 53.	Boys only smoke because it is forbidden						3363
D 54.	Boys who smoke tend to be bullies						3364
D 55.	If you show the other boys that you can smoke you have proved yourself						3365
D 56.	It worries me that so many grown-ups cannot stop emoking						3366
D 57,	It's the boys who don't do well at school who often are the first to start smoking						3367
		(1)	(2)	(3)	(4)	(5)	

LEAVE BLANK

		Strangly Agree	Apres	Docerain	Disagree	Strongly Diagree	
D 58.	If you smoke, you probably suffer from 'merves'						3368
D 59	It's more fun to smoke, if you know it is forbidden						3369
D 60.	The teachers do not seem to mind if we smoke outside school						3370
		m	(2)	(20	(4)	(1)	

19 19 19 19 19



9.1 In each group of six words below, choose the word which scene the same as the word in capitals. Ting the same beside that word, so has been done in the example.

	racii dane al tipe exacpia.	
(1) <u>GAP</u>	(12) STARVIX 1 after begin & 2 disple true 5 3 fellor frighten 6	(23) DOUBSE
1 691467 1mll 4	2 affer begin is	2 frequent how 6
1 les 2006 5	2 diegle tris 5	2 reverse dip 5
	3 HELLOY TRIGUEN 6	3 Plan abov 6
(5) TOYS	(13) PRETHE 1 seent bux 4 8 ledge outh 5 3 tower peach 6	(24) DOCTE
1 string bread 4	1 seens bez 4	1 prostanate mak 5
3 mere phoes 6	8 ledge bein 5	2 defined herely 5
(3) PROCE	(14) MALARIA 1 December time & 2 Theatre Fruit 5 3 comma fever 6	(25) VIRTE
1 sling Slate &	1 bidenest ture à	1 depending feature (
3 bugle fork 6	2 theatre fruit 5	2 burbarous edecies 5
		3 YOURAY POBURE (
(4) <u>DUIP</u>	(15) EDECLE 1 interfere mix b 2 declare press 5 3 gamble reway 6	(26) surses
1 light beg to	1 interfere etc. b	1 (astingting some)
I latter Met 5	2 declare press 5	2 walky mass 5
y serious ling 6	3 ENDIS PROFE 6	3 trivial solid 6
(5) BEAR	(16) PARCINATED 1 1H-frested modelled & goldened charmed 5 including engled 6	(27) STANCE
1 alive atter 4	1 ill-treated modelled b	1 mortilles store i
2 close post 5	2 postored obsided 5	2 position slave 5
3 10037 9387 0	3 Prightness copied 6	3 glance grief 6
(6) UNILAPPT	1 choose stems to boast hope 5 last lerk 6	(SS) SERVE
1 sed bright &	1 choose steem b	1 rotate attem to
3 kingly spring 6	2 bonat hope 5	2 diagnet serk 5
(7) DISTURB		3 DELEGE Ascend 6
(7) <u>DISTURB</u>	(18) PROGPER 1 ingine propos 4 2 trespage bussch 5 3 sacced punts 6	(29) SESSUAL
1 transfer skip 4	1 inegine propose 4	1 contraperatel record to
3 deale want 6	2 trespays besset 5	2 receivery crucial 5
) switten pulls, 6	3 resional cereful 6
(5) BATTLE	(19) ABOUTEONS 1 appliance receive 6 2 securifices footities 5 3 insuling wares 6	(30) QUICILIATE
1 strail light 4	1 spoltands receless 5	1 congregate progress is
5 Fight last 6	2 machificent frocitiess 5	2 pacify radiate 5
(9) RECEIVE	1 deciste correct à 2 châptine charge 5 3 centire purity 6	(51) <u>CONSTRUE</u>
2 baltana walk i	1 dectoate corvest &	l interpret seatter to
3 steep drive 6) confirm marry c	2 contrastor cellect 5
1 cost store is	1 lish paste b 2 colour term 5 3 rule trick 6	(25) CVENTURE
2 sight jolt 5	2 colour barn C	1 ridiculant dering is
J 790 Seec 6	3 rule trick 6	1 talkative face 6
(21) COMPTSUE	(22) FORMIDMECS 1 branching excepted & Presible orderly 5 3 revioling recenterance 6	(35) LATERY
1 clash statter &	1 transfers investment is	1
2 till Respan 5	2 femiliae opdarky 5	2 swerthandened delayer 5
OCMAIL 6	3 PAVSONING PRESIDENTATION G	3 impenious horille 6

APPENDIX 4

Comparison of the answers of non-smokers, triers and smokers, to all the questions asked in the survey

- Notes (b) Except where otherwise indicated percentages are said on the following weighted figures: 2320 non-smokers, 1836 triers, 1038 smokers. The actual numbers taking part were 3046 non-smokers, 1678 triers, and 877 smokers. For definitions of these three categories see item 76, Appendix 6, 2.
 - (2) For sets of questions (e.g. Book I Q22) two answer categories only were given to the informants. The positive answer (Yrea' as opposed to 'No', 'True' as opposed to 'False') is given to the left of the table. The figures in such tables are the percentages of non-smokers, triors, and smokers who gave the positive answer.
 - (3) The questions were in the order in which they were answered by the boys with the exception of those in the four 'image' questionaires (Book IIA, IIB, IIIB, IIC). Responses to all these questionnaires are combined in a single table which is shown at the end of this appendix.

In the said for you?	Sooker Sooker	Trier	Smoker	Total
	*	×	8	*
Below 11	0	1 0		0 1
Over 11 = 11±	6		2	5
Over 128 = 12	19	6	- 4	1.5
Over 12 = 129 Over 129 = 15	18	9	5	13
Over 13 - 13	13	10	3	12
Over 1% = 1k	10	Ib	25	10
Over 1h = Ild	.0	16	10	12
Over 156 = 25	2	16	51	12
15+ ,	5	9	29	- 6
2(a) him many brighters and sisters have you altograther?	_	_		-
Note	111		- 7	2
One	W	10	19	29
20	8	23	27	35. 1
Three	23	16	20	15
For	1	9	13	2
Pive	. 5	6	7	6
80x	5	- 3	- 6	3 (
Drives	2	2	2	8
5646 + 1111.				2
23 b) [f year have any brothers and staters				
(1) Now many of them are object than you? Some	42	30	26.	35
(tat , , , , , ,)	. 52	36	32	17
790	11	16	22	15
Tores	1 7	10	32	9
Four +	- °	8	9	7
[11] Joy may of then are ywager then you? Hore	38	36	32	- 36
Ore	32	22	30	30
Tel	22	17	- 24	16
Three	10	8	2	2
				1
Bear for percentages	2575	1609	998	5529
9.3.5.5 Pether's Doppetian 1 and 2			-	_
Q.3.5.5 Petheria Occupation* 1 and 2	23	33	23	23
3 Novel	15 17	26	12	35
1 10000	17	18	12	127
5	2	70	12	20
0.5	2	- 2	2	2
demi/recired/amenglayed	3	3	A	3
				_

Comed true childre generiphism of feeber's conception using Backstrum decreaty Classification given at Quantized 3, 4 med 5, 0.5 mm. "Describe enerthally the sort of job you medd like to do show you leave standed, 0,4 mm 70m, which is the name of your fetber's job?", 0,5 mms "Describe covarially the sort of wark to dear?

N005 2

Note are note complete about the taken you like to do in you cases time. Thousan that we do not know who you are, and their your common are positionable. Thousa be as from and trushed as you can - but now'd bound.

Please to as fruit.	wed picture we had day - not don't corner				
		Spe- Door	Trier	Smoker	Total
Which three the saloul?	ngs or you like dring head in the time after	×	\$	×	*
(TLOK the skyrg things you like doing best)	Aperts and passe	20 30 30 30 50 29 21 21 22	20 P. C.	22 15 39 16 39 16 39 16 37 67	53 26 37 37 43 43 43 43 43 14 43 11
		-	-	Н	\vdash
7. Do you spend in mostly go out:	ont of year space time of home or do you				
(first cas)	Healy of hom-	27 26 57	18 31 51	11 56 30	33 14
d. Do you like of to be with oil					
(Tick one)	1 line to 30 on 50 on .	35 6), 21	9 30 21	6 36 39	10 50 90
9. Do you often i do in your ope	feel bered become you have outbing to are tire?			Г	
(ftck one)	i me aften bored 1 me anwellens berefannen 1 me ankein or never berefanne		11 6, 25	13 56 29	11 60 20
10. Do you play fo in any append	or year from or for your Subsel or Clob	Г			
	Tet		53	1,0 51.	SS SS
11. Wen did you	last go to the pictures?				
[Tick one]	Testacolog or the day before 1e the load corner days. Alega tem meals ago Sectors the seals ago Sectors the seals ago There these see costs ago 1 parer go	15 25 15 39	8 20 25 19 26 2	19 29 19 1h 17 2	80 20 23 18 28 3
		_	-	_	-

	8000 5				
		Non-	r frier	Scolar	Total
SE-Weigh de yes 15ke sesty		15.	15	*	×
7º rend about To rend	a Stery or see a file or T.T. programs: Whing people at school a story or see a file or S.V. Programs young people in their sours (the a flory or see a file or T.V. programs plong people at seys.	. 52	9 59 32	9 99 23	11 55 36
13. With whom do you mostly so	out?	-	+-	-	-
(Tiek one)	With a boy Friend. With a group of logs, With a group of both type and girl, Alone. With a girl friend.	33 8 20	26 31 15 7 8 3	16 39 35 3 30 1	27 35 13 8 20 7
14. Some children modes ofgore at achoos,					
Nove you ever tried to seed	Ten	30 70	100	200	63 37
15. Have you moked some than o	om cignycter Yes Ma	0 100	200	100	47 53
16. Now many engineering on you	make sort				
[Tick one]	1 dp est anothe new Lead February Lead that the state and the section and the	100	81. 19 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 27 28 16 7 10 6 8	77 6 5 3 - 1 2 1 1 1 1 1
17, What model chos do you thi	NX you and your family belong buy				
	Upper nisele class. Michie class. Mecking class. Me perticular class. Dests know, class.	33	5 36 35 10 85	6 22 15 8 22	5 26 36 9 25
180a) Now many children are there	t in your frem at mobody				
	Date: 15	14	26	2 5 13 26 32 16	1 3 10 25 41 16 4
19(b) Whet position would you may in pomeral, that is, beking school sunjects?	Occurace of all the			1	-
	In the top tee	3	23	27	M 24 39 21
	L				

		500K I					
				Rese Onder	Berry	Dotter	
		rs have altogether each		_	1	-	10061
that	Act cut take of	r spent it may may you		- 15	5.	2	15
			ga and 3 and		3	2	-6
			go and 5 kid	25	27	8	20
			ga end 9 end	26	22	17	23
[710	ic cos)		hip ead 11, and		20	16	19
			ings and 19 and		17	19	II,
			761 KHG 75 And	6	9	15	
		alemajadom 30 obillings or o	079	ii l	7	3.5 10	5
DE (1)	Do you save my	of this name?	Yes	80	85	72	CL,
			30	12	21/2	29	16
[11]	IL Yes What are	yes swing to fort					
		To buy records		i,	3	3	3
				3 1			
						. 5	3
		7s bay clather		1		15	
{T1:00	530				- 2	1 1	13
onl	4)					6	1
		For a ballow,		30	39	32	31
		I an net saving up the	waterprint by	17	200	35	27
		I so sering up for no	ething else	10	17	32	27
		lines for paraettiess		5339	3500	705	4935
Di. De yes	is any paid yes	retation relocal houses?					
			Ter	20 72	44	57	57
			St	72	22	UZ.	63
Il, Are you	usually terior s	ns the end of the recip	Ter	27	32.	L7	32
			80	72	GB	53	58
	e to opend 107	r in which of these ways	MONES 4				
			352				
				龙	1/6	LS.	1,1
		player or tape records:		40	U,	10	42
	e) by a mail	ol instrumet		15	20	31.	27
				59	67	12	65
	e) buy specia	100,000		57	55	U	55
				56	1,2	25	
	D by stavet	ites					3à
	a) buy elasted h) buy avorts	or to cree		1 50	Si.	39	19
(Tick soch one atther Yes or Mg)	g) buy eighted h) buy amounts i) buy stopole	ites	=				

20 5 4 5 20 000 0000 500 00000 00

[6]

) No you ever feel :	servous or tesse?		Snokar	Trier	Souker	Total	
			*	*	*	*	ı
	(Sick cos)	Sometimes Sandy over	60 32	11 58 31	10 5k 36	9 55 32	
l When you do feel ; of these things t	gerwoog or tente, on you do o help you to relea?						
		ESS					١
	a) title op millionnen.		32	A2	40	36	ı
	b) Chee gon		39	46	51	W	
Tiok each one (that Tax or Ec)	e) has a coste		54	50	35	50	
1000 160 60 207	d) Smoke a digerette		2	6	67	13	ı
	a) Cur = penell		69	R.	67	67	ı
						9	ı

Here is a list of things which children continus is, or think of some, fined which one, and them pake tick $\langle \mathcal{S} \rangle$ in the column which is right for yea.

senseter that year answers are COMPTROTTLE, as to as trainful as you can , , , , . . but don't beaut,

	Droker	Srier	Snoker	Total
	*	5	1	5.
2. Note for of policemen				
I have actually done thin		19	3.	16
I have thought of doing this but I have gra- some it	- 8	40	42	37
I have never thought shoot this	51	10	25	147
2. See into filetie				
I have actually done this	125		70	95
I have shought of duting this but I have not duty in		E)	16	19
I have never thought short this	24	27	9	26
	$\overline{}$			
3. Reflace to be talk what to do		_	66	l l
I have actually done this		92		1/4
I have never thought shoot this	37 20	30 18	20 33	32
	<u> </u>	_	-	-
to lose or tenner vises paint to me so somet				
I have actually dute it	L2	57	61.	50
698 15	111	25 28	23 16	26
I have namer thought about this	30	20	10	
5. Earley permits (militare				
I have actually done to	20	32	42	25
I have shought of doing this bot I have not done it.	20	30.	25	23.
I have never thought about this	58	1,5	34	я
4. Specia bank etc. n. teropher	$\overline{}$			
I have notably done this	36	32	62	35
I have thought of doing this bot I have not	36	w	25	36
I have never thought about this	ia.	96	37	28
7. Rent a states for tap				
1 here actually due this	7	16	36	15
I have thought of doing this bet I have not done it	20	20	27	251
I have naver thought about it	75	56	37	61
F. Med delay the best I am in my salest work				
I have noticity over this	21	30	44	27
I have thought of deing this bet I have set	10	22	23	21
I have never thought about this	9	1,0	33	27
9. Go arrand mith a touch cong				
I here propally care this	33	25	107	21
I have thought of deing this but I have not		8	20	22
des it	- i	32	33	57

NOOK II - C Quantitions

	Note 21 - C describes					
		None Smoker	Trier	Esolar	Total	
		×	*	8	5	1
10,	Refere to over the grafacta				l .	
	I have accountly done thin . I have thought of deing this but have not	38	0	76	52	l
	I have never thought about this	33	24 13	10	22	
n,	Brank tota a bustering					
	I have abundly does this		9	39	7	
	I have never thought short this	30 67	18 73	25 57	70	
12,	Plack swetting					
	I have thought or coing this but I have not		lo.	56	26	
	I have mover thought about this	66	36	16 27	50 50	
1).	90 spi drinking been or extrict with friends					
	I have shought of deing this 105 I have not		22	54	20	
	I have never thought about this	76	52	20	60	
24.	So out with gires	-			-	
	I have shought or soing this see I have see		61	86	,52	
	I have sever thought about this	29 35	37	6	22	
25.	Eress up to look obser than 1 mm					l
	I have accountly done this. I have thought of doing this but I have may done it.		23	46 00	25i 23	
	I been never thought about this	6	19	31	55	
16.	Choose all my one classes					
	I have actually done thin I have thought of oring this set I have not done it	46	57 27	76	54	
	I have never thought about this	š	16	9	80	
17,	Jidwe e esc					
	I have accountly done thin I have thought of doing thin but I have not done it	18	27	40	85	
	I have never thought short this	10	32	35	36	
18,	So to coffee burn					
	I have solved the this I have set done in	36	57	77	50	
	I have never thought about this	42	23	10	30	

		No-	Trier	Sooker	Total
		15	5	5.	5.
19.	Go to a rabile carry hall				
	I have shought of soing this bat I have not	38	.35	60	30
	I have messer throught shoot this	22 60	25 30	31 10	25 47
20,	Tay to see a film with an DR complitioning				
	I have acceptly done thin	17	35	70	л
	I have never thrught about this	20 20	25	27	37
21.	Sept_a forbidden hosk				
	I have actually done this	19	ы	67	37
	E have saver thought about this	7% 57	26	15 38	1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4
22.	flag out late with a group of objections on airla				-
	I have antendly done this	25	14,	77.	.30
	I have never thought about this	20 56	35	15 15	19 43

ions of then you may admire very much, others you may not core about; or parised you may challed then, or you may never here been

Figure read each mane, and then put a tick in the column that In right for you. 1. Die Berryes I nontre him a lot ... Eines Clare I ministre him a 100 Date of Retrokryt I edelre him a let The Solling Steams Cliff Michelmore Sarold Pilmes Dir Winsten Churchill

SOOK [] - E Questions

On this page you will find a list of things that may happen to you oping, any keppen to you diskind, or any some happened to you.

to you.

Floure read every question, and them put a tick (*) to show which scores is right for zgg.

			Stoker	Trier	Stoker	Tusak
			×	5	5.	5
1	. Are you wrongly sommed of	annerth log?				
		Cities	29 70	22	33	22
		Sensitives	10	5	83	TL 6
			<u> </u>	-	_	_
2,	. Det punished at echosi7					
		Special recommendation	8 G	75	37 57	14 68
		New	13	30	- 6	16
3.	. Are forced to stay in after	r pelant27	_			_
		Often marin	5		32	
		Reser	Lis.	56 36	55	52
				-		
Ĭą.	. First you don't have enough	noney?				
		Orden	28 16	19	33 63	26 12
		Marter	37	×	25	32
			-	-		-
5.	. Dignat get owners when you		19	,,		.,
		Orien Seetions	46	16	37 48	1d
		Name and annual annual and	33	33	31	33
6.	Danft know what to do with	yourself?				
		0°540	10	17	16	27
		Services	57	61 22	50 16	59 25
			_	_	- 1	_
7.	. Feek your pressts don't und					
		Often,	16	92 58	2 1	22 30
		Sent	35	26	30	30
0,	Feel there are too many rel					
		Often	47 30	56 35	66	.53 .35
		Serect	15	9	1	12
9.	Feel you over's men up you	the Hherst		-		-
		Crise	14	15	33;	14
		Server	32	58	56 30	55
			-			
10,	Dannet on your school work	or mall to root pohery?	18	16	22	15
		Sunctions	55	60	59 17	57
		perer	34	25	47	63
11,	Feel that moet things are t					
		Office	56	11 60	13 Ri	9
		Name and desired seasons	36	23	27	32

Book II - F Questance

Planes TES or

ø,	like this:					
	130 (lb)		Non-	Sylen	Smoker	Total
			5	5	%	5
L	Do your marrows often feel on some?	Yes	10	35 65	36 64	33
		Yes So ,,,,,	36 G _i	35 65	9,0	577
3.		Yes		11 69	13 17	12 00
lia.	Do you often feel you can't sit still?	Tes 30	58	61 39	57 10	99 42
5.	To you often have beadscheel	Ten	11 00	33 67	30,00	N. 83
6.	Do you often feel as if you wast to screen?	Yes	22 88	19	15 85	15 85
7.	Does your skin often arest out in a realf	Ter		24 EE	16 84	31. 86
٥,	Do you abiver constines own in warm meabler?	Tes	38 62	39 61	45 55	9.0
9.	To you feel you wass to chem or each nomething of the item?	Den		- 42 50	19	100
30,	Do you find it difficult to relax?	Tes	20 71	32 68	86 72	30 70

NOTE 21 - 2 Opportuni

People have different ideas about wany things. Here is a list of idea that some people bullers is. The will agree with sees of then and giverne with others, Secretary yes will agree advantage and at other then yer will induce through, No west then you may be injuried without you agree as thoughts, found onto if them continues convolute, then yes at this yet in the culture which is right for yet.

		Non- Disher	trier	Switzer	71442
		15	1	5	×
1,	Forests absold take eare interest in the delaga of their children.				
	Agree		82	75	81.
	Nagre	11	11	38 1	12
2,	A buy who ploys trusts from sales1 sheald be arrore2y pinished,				Г
	ign	. 77	- 0	51	30
	Topartifo	25	25	7 12	.0
		- 23	10	44	22
3.	I se getting very fed up with school,				-
	Agree	36	io	65	16
	Discrete	30 52	32	20	10
	If I want a thing, I onjoy naving up and waiting to	-	-		-
	get 11.				i i
	Agree	. 66	50	40	a
	Shorrials	. 2	3	10	10
	Rages	22	33	1/2	.33
5.	I must to grow up an quinkly an punitile,				
	A0'90	. 39	45	.59	45
	Secretain	11k 50	3 kg	10	12
		30	- 01		40
6,	London is the ospital of intlant.				
	Agree		1.5	1	ŀ.
	Boartals		150	20	96
					-
7.	I must to be big and tough.				
	Agree	30	144	40 29	19
	Browton		23	33	39
0.	A boy who talks the tempher m rik to keep out of trouble should be downedly punished.				
	Agree	1 60	19	- 52	-63
	Opening	- 8	39	. 9	9
	Stage	25	22	30	30
9,	If I have some entry, I hims to spend it right many,				
	Agree	25	19	35	27
	Operate	4	3	12 53	1
	ENGO	1.	-	30	~

The two categories of lagres strengly and lagres' saws been unliqued form a bingle obligery at lagres' for the purposes of tain sable, and afmilledly, ledsacree strengly' and id segrec' been been collegied from idispersal.

New II - 0 Questions

			Non-	Trier	Doolyer	Total	
			- 5	4	-	1	1
20,	Solebody is always afte having fun.	r yes to heep you from		1			l
		Agree Disertals	29 10 61	30 9 6	10 8 9	32 10 59	
11.	Scortines E want to long grows-upo fuzz about,			-	1-	1	1
		Agros Uncertain Disagres	54 13 33	61 11, 25	68 20 22	59 13 29	
12,	When I grow up I don't a else. I want to be my or	WHI to work for account in body.					1
		Agree Uncertain Malgree	11 36 13	42 17 41	16 16 38	43 26 41	
13,	Adults never understand	w.					1
		Agree Uncertain Disagree	36 11 53	15 15 14	55 11 35	41 32 47	
24.	I am quite happy to be a grown-up.	s school and not yet		1		-	
		Agree Uncertein Disagree	65 10 26	55 29 35	58 32 50	96 11 33	
15.	It's nimer to wait and as to have it right meny,	over up for scentifing than					
		Agree Guercato Disagree	66 8 25	57 8 36	18 8 51	61 8 31	
16.	Enyo like no ore quite in	terusted in gifts.					
		Agree	52 11 37	70 11 19	02 7 11	63 20 27	
27.	A boy who copies from sun Seel should be severaly p	eane wise in a school unished.					
		Agree Dissertedit Disserce	73 7 20	66 9 25	57 10 33	68 3 24	
23.	t very manh wast to start	sarring some manay meet.					
		Agree Undertain Disagree	71 10 19	76 0 11,	15 6 9	75 9 16	
19. 1	then I grow up I wass to I W parests.	e different, mos like					
		Agree	15 12	49 16 35	54 10 36	47 15 38	

BOOK I

Answered by boys who anaked and boys who had given up smoking

1 (a) How old more	yea when you comed year films	Store Stoker	Inter	Oneker	Total
ciptrvitte?		- 1	-		
	Tweeper than 5		1 2		2
	5		1 2	3	
			l î		3 7 9 12 80
	7		1 6	3 9	
			1 1	12	
	9		13	11	
	10		23	16	
	11		10	13	16
	12		10	16	17
	13		6	8	
	N			1 1	7
	15				0
(b) New 65d you	get your first eigerwise?				
	I bought in as a shop			13	50
	I was given it by sy father or sether		5		
	I was given it by my brether or stater			3 11	- 6
	I was given in by a grown-up				- 8
	(set oy father or nother)		. 5	6	
(Tick one only)	I was given it by a friend		55	56	
	I got it from a slot madeire		- la		
	I found It ar took It			3 8	57 3 7
	1 got 15 some atter way		6	3 1	
(a) May old you					
	I wanted to lowe what seating was like				73
	I was dweed to make		75		
littek gag onlyd	: was aboving aff		1 6	2	5
	I wanted to be like my friends who smoked		13	16	15
	a server on me war of the bearing and become		1.3	16	74
		-	_	_	_
LOUGH SE SERVICE	you feel sick or disay?				
in our to man	Post rees about the annuals. And ""		20	40	35
	80		70	10	166

incovered only by hows who had eften un smakura

	Answered only by hope who had sive	0.102.03	akung		
		None Broker	Trier	Instar	Total
1 (+) (1)	Why did you stap moking - for which of these resumes?	15.	g.	5	15.
	1, 1 didn't like moning		.59		1 1
	Z. Hy paraeta closes like on working		75		
	3. I thought moving cost too much		80		1 1
[Tiek	A. 1 throught 1 ofght got long outcor		65		
elther	5. I thought weeking was test for up broken		83		
	6. I thrught months me a stray holds		50		
	7. I thought I reside't to fit for sports		60		
	E. I wasted to prove that I could step		.50		
	Size for percentages		1036		
	Which of the above resigns was the cost importent for you?				
	Voite Its mater here 1		20 9 8 15 21 5 16		
	8		4700		

BOOK III

Inswered only by boyo who smoked

2 fall librario en	2 (a) liby do you make new?		Tring	Conter	Tetal
- (trax	*	*	×	×
	Recentle by Friends state			32	
	Notatio I enjoy mobing			0.5	
(Tick out) one	Receive I sught give up menting			1/2	
elther from or relas!	Necessir morning orders no cores			k7	
	Recorde peopling makes no feel big .			12	
	1 stoks for some other reason			31	
2 (b) Tors make	ng sill name you feel stak or dings Tes			A 96	
2 (a) Are the a	parettes you unake washly tipped or untipped they are tipped they are untipped			07 13	
8 (e) firm, in mb	nk way, do you <u>usually</u> get your ofguration?				
(Tiek gag on)	I buy then sh a shap			80 8 1 0 11 5 0 1	
ends week? Stoke Sober Strick end Jacke Notes Stoke St	peop de pos umally spend on signettes 2 dillings — no dellings con à consequence — 3 dellings con à sec desceptione 3 dellings con à sec desceptione 4 dellings con à sec desceptione 4 dellings con à sec desceptione 1 dellings con 54 and sierropeone 1 spend say sourcy on elégenitée			20 19 21 21 13 0 3	

NOW ILL

	inswered only by boys who see	long.			
		Stor- Disjoir	inter	Iterior	total
2 (f) liber f	r full moks?	5	4	5	8
	755			1	^
	1. A5 person			57	
	2, At the pictures			90	
	3. In certae berg			ω.	1
	i. In deace hells			59	
	5. At bowling allege			20	1
	6. In pirks			fi:	
(71ck each	7, In the country			80	
Tee or He)	6. In the street			13	
	9, A5 hone			36	
	10, la a friesi's huse			17	
	11. In an empty hotlisting			.53	
	12, When I feel bored			.50	
	15, When I on nervess			45	
	Ho Man I an offered a efgirelie			29	
	15. When I rest to concentrate			30	
2 (a) Mound shilds	you may you need need when you are with allier was or when you are on your own?				
(Triefs	thip with other children			11 36 37 11, 3	
				_	
	on scoke, do you manally breathe the make				
11635	down teto year lange?			10	
	90			20	
		-		_	

Asserted only by logy who exclude	No-			tisst
2 (1) (1) Do you went to atop making or do you make to go only	Senior.	S S	8	2
Ward to obey News to go on No above			45 50 5	
(11) If you want to stop seeking May is that?				
1. I don't like making			16	
2, by parents dun't like on smoking			77	
3. I think moking costs too such			13	
ig. I think I might get long owner			75.	
5. I think senting to but for my hewlith			16	
6, I think moking is a curty habit			53	
7. I think I won't be fit for sports			Si,	
S. I want to prove I can stop			87	
Bide for percensispes			14,0	
(111) Which of the shows reasons is nort imported.				
Write Its master here			١.	
1 R			1.5	
J			12 27	
Sagrana			20	
6			2 8	
f			1.0	
None for percentages	0	0	MA	440

	_		_	_
Answered to 431 topic	Step- Stooker	Trier	Snoker	torus
A 3, the nour altern evolutes and alcher de yet have all ageliar size model 1	* D20000	56 25 11 5 2 1	\$ 15 15 15 15 15 15 15 15 15 15 15 15 15	66 20 9 61 1
A 2. Are there assully packets of eigenvites or tobacco lying around in year book?				
(Tick cos) Ten offen	33 35	39.00	200	30 32 36

som III Angeored by all begg

A 3, De year perce	Se proke?		Non- Orokar	trier	Sooker	79541
(No man anlT)		y parente projet	\$ 49 20 11	13 30 12	10 th 10	5 12 21 11
A Is the year market	Nefthe	r of 10 perents make	30	28	ű	19
Whole models to	My My My dail They has	Oid purish no read tail no		63		
(fink one)	They was	Of past tell or not to	27	32	12 17	п б
A S. a) What do yo	no think in the right ago	for a log		_		
		13 or mor 15	1 8 4 5	1. 6 30 15	12 25 20 20	7 9 35
(Tick one)		27 28 29 20 20 20 20 20 20 20 20 20 20 20 20 20	7 23 3 4 4 4	5 31 2 3 5 30	5 1 3 3	7 11 3 3 5 5
b) And for a	g1v17	13 or water 14	1 1 2	3 4 5	6 1° 13	2 4 5
(Tick one)		25 27 20 29 20 20 20 20 20 20 20 20 20 20 20 20 20	7 4 11 5 5 6 55	11 0 10 1, 1, 6 45	80 6 9 2 2 3 20	10 7 10 5 6 5
A 6, What shout po of them anothe	mr friants = how many T	All of them Next twi min til this med this thing of them peaks	2 7 9 30 44	6 25 20 9 12	26j 36 15 12 1	2 19 23 35 27
A 7. a) Here you o long once	over heard of a disease of	rilled Yes 70	95 5	97 2	90; ù	95 A
A 7. b) Mesld yes	my these things came I	ting owner?				
			37	44	47	ta.
Ottok gently One either Yes or Sol		etertes	1.7	5k 65	5i ₁	52
162 of Sel			33	44	47	II.
		_		-		

200K III

A G. Row et	N 200 ever to best stock last stage? 000 you -	Non- Scoker	Trier	Stoker	THEAL
	200	7.	×	×	×
	al read squar 152	1,0	10	L/R	40
	b) hear people talk apper \$17	6	68	70	66
(Tick god)	a) see s film sheet it?	35	1,5	ft.	39
Tes or No.)	d) see odvertinement shoot it?	67	70	68	60
	a) zee = T,V, programme energ 127	67	71	71	- 69
	f) hear a destar or ourse give a talk about 157	39	27	31	30
	g) herr chour it in a leason of selecti	25	35	35	87
Don't for WESTERS T	SMC TO ALEMAN AND EDWARD CHARACTERS. THE STATE OR SET.				
	beliew that you yourself could get Noor from arching?				
	Tee	85	76	89	29
		-	-		
A 07, 81 10	so the danger of long outeer put you off modding?	60	6.	27	66
	No accessor , ,	10	35	66	31
p) II	the depart of long assert date MIT MIT you off thing Why in that?				
	t) : den's warry short it	65	75	75	75
	2) I am too young to get long empor	27	27	8	28
	3) Sur-makes get ling oncer	57	70	75	68
	All Very few mokers get lung osseer	27	.39	47	4.0
(Tiek goot one either True or	5) If you are going to get him opport making wants nake any officerates	Ja	ю	20	50
PALSe)	63 16 bassPt been proved that proking causes long owner?	19	.55	9	55
	7) I dust mode easigh to get ling	0		Ei,	a,
	8) I dust breadle the mode right does	q	0	26	DE.
	o) I enjoy meking	0		100	19
	\$0) I coult step mobiling	0	0	42	1,2
		- 1	_ ' !	- 1	Įū.

8008 111

Annuand he of

A Table of the control of the contro	Answered by all boys											
1	A 11 of the year believe that smoking can affect year from the True maker 79561											
1 1 1 1 1 1 1 1 1 1	1	esith is may other may?		5	15	1	5					
13 14 shape year emission 15 15 15 15 15 15 15 1			Yes									
13 14 shape year emission 15 15 15 15 15 15 15 1				-			-					
10 10 10 10 10 10 10 10	n) 2	f. Yas Yow one smoking at	fect year healthy four									
1700 17 18 18 18 18 18 18 18		1) is alope you growing		37	1.5	40	60					
1 1 2 2 3 4 5 5 5 5 5 5 5 5 5		2) It weekens yes		83	Bo	65	79					
1 1 1 1 1 1 1 1 1 1	stock	3) It makes you eatch co	ighe rad colds nore	£3	53	44	57					
200 20 20 20 20 20 20 2	elther	4) is sakes your breath?	se erricat	85	83	- 66	80					
1.0 1.0	True or Foliati			62	57	39	57					
### 15 18 18 18 18 18 18 18				75	23	. 60	79					
\$ 15. Well a fine part of the control of the contro				16	la .	20						
These when a constant the paragrant of model (1) and (2) and (3) and (4) and (1.0	10					
This cold	A 10. Hour	d you say that there is to being made about the don.	gers of Sooklag?									
Proc. Proc	(m)	s one)		35	346	19	16					
1 1 1 1 1 1 1 1 1 1	799	are now, and they wested										
1	ITIE	k coa)				36						
The control is not by the control in the control is not control in the control	1 M. Con	a former speciator and appear				-						
Chair and	She	a smeking is but for you.										
1. 15. 13 here you can any assert/member shifts key to be a separate of the se			I telless that									
# 100 # 200		on other	I so not ours	- 9			16					
\(Test			senonia which try to									
conies or papers for children and tensingly, which tay to stop children sending?			Yes			50 38						
Tel		contes or papers for obili-	tren and tensigery,									
			Tel	79 85	79 21	74 85	77 12					

3006 123

c1 (:	i) Do you think these nameCommiss in	Non- Inologr	Trie	r Stoky	TOTAL	
	ehildrens' musaines, conics or papers will stop children scating?	z.	5	×	×	1
	Tes definitedly	5	1 3	2		
	Tex perkape continue	42	1 46	12	8 10	
	R	43	1.5	166	17	
		_		-	1	н
111	If you make these them admired several will good children modifier May to thee?					
	TRUE					
	all leasure oblides make up their own				Į.	ш
					i .	
	AdMINISTRATE AND	40	97	96	92	
				-	-	
	b) Secure the advertimenants are not					
	good sensigh to make children stop				1	
(Tick each	accating	53	50	a	33	
one either	e) Sectors children que't toke appr					
True or	actics of the advertisances	n. 1	- 12	81	20	
Palse)		04	12	81	102	
	d) Section oldidres out-t size problem					
	(toe they have adapted	5.	25	12	40	
			-		140	
	e) Because oblighen don't believe the					
	ACVANCISATIONS	67	50	57	63	
	f) Seconds talling obligges not to mosts					
	Not make then sanks all the aure	0.1	61.			
	The sale sale sales	00	04	63	64	

people have different times about many direct. For its 1 less of less this people regime 1, the set its 2 less of less this people regime 1, the set it was 11 less of less the set of less than 1, the set of less the set of less than 1, the set of

		Spainer	Trier	Socker	Treat
		- 5	*	8	5
1,	Smaking is only congerous to older people				
	Agree	34	35 10	45	36
	Hatgree	59	55	13 46	50
٥,	Containg is a dirty babit				
	Agree	63	a	- 22	66
	Disertain	3 15	7 10	67	- 6 20
1.	Sophing motes you feel on top of the world	-	_	_	
	Agree	33	16	50	35
		13	11	35	3.5
	Otengree	77	75	55	72
4.	Smoking is bed for you				
	Agree	90	62	40	- 63
	Boordele Diangree	2	10	30	13
				- 17	D
5.	Sooking is only dengarous if you have been sooking for many years				
	APPR	45	55	65	
		33	1.0	10	11
	Diameres	43	35	25	37
6	Smoking given your breath & bed smell				
	Agree	8)	03	60	BO .
	Organism	50	12	30	- 6 16
7.	Socking helps you to feel more at saze is a group			_	
	APPR	30	Att	65	40
	Uncertain	19	15	10	
	Disagree ,,,,	51	Lō.	25	43
ű,	Smoking is very enjoyable				
	Acres	10	33	15	20 16
	Uncertain	1.6 72	52	17	50
0.	Senting heige you to feel nove at ease	-	-	-	-
	Agree	23	40	63	37
		20	Xi.	10	16
	Dissigner	57	Ari	82	47
22.	Booking stains your tests				
	Alter	03	41.	15 10	79
	Disagree	10	32	25	16
11,	There is nothing wrong with annicing		-		-
	Agent	30	23	59	22
	boortele			1	5
	01040797	86	77	33	73

The two categories stragree stronglytens'agree', how been calleged take n shall entensy of agree' for the purpose of this teals, and similarly, 'this we strongly' and 'disagreet have been callegood one adjagreet.

	Scot 111 - 0 Questions	For- Souter	Trier	Snoker	Total
		×	5	1	5
Cooking can help people when they fe	ol servous or ecourrezzed,				
	Agree Uncertain Diamgree	56 33 30	68 11 21	79 6 15	64 12 25
all signrette alot meshines should b	e taken sway				
	Agree Undertain Disagree	61 10 29	43 7 50	21 6 73	10 9 12
Doys who are cought swoking should b than they are	e ponished much nore				
	Agree Uncertain Otsagree	67 9 23	14 22 41	21 6 77	52 10 38
feeking to only dangerous if you mo	ks 4 <u>325</u>				
	Agres Noortain Dioagres	55 8 37	68 6 26	99 8 22	61 8 31
Sexking stains your teath					
	Agree Undertain Disagree	87 6 7	83 8 9	68 9 23	R2 7 21
Others are often trying to encourage	me to ample				
	Agree Uncartain Olamgree	55 6 39	63 k 33	17 8 16	56 6 38
I don't like girls who emoks					
	Agret Oncertain Disagree	77 8 15	63 10 27	37 6 57	66 D 26
Most of the boys in my class have 4	profix new and legach				
	Agree	20 20	65 35 12	82 7 11	54 17 29

	Osagree	15	27	57	26
19.	most of the boys in my class have 4 mode new and again				
	Agree Googradh	10 20 10	65 35 23	89 7 11	54 17 29
20,	Girls who mooks go out with boys more often				
	Agree Decerision Ginagree	57 17 26	99 15 86	60 30 86	58 16 25
21.	People who amous are trapped, they can never give it up				
	Agree Uncertain Olompie	55 9 36	35 7 58	27 20 63	64 9 47
22,	Boys who make are usually sore friendly				
	Agree Uncertain Disagree	10 12 70	35 18 60	35 13 42	17 35 67
23.	All my best friends smoke sometimes				
	Agree Unort648 Diangree	28 32 31	11 11 19	76 7 17	36 11 50

	BOOK 111 = D Quertions	Non- Seoker	Trier	Droker	Total
		*	*	×	- 5
Ro.	Boys also assitu des more administrata				
	Agree	26 15	33 15	72 22	33 15
	Distret	59	52	32	58
25.	it specia me to see how helpless from ourse one than they try to give up smoking.				
	Agret	6s 15	(3 1h	55 15	68 15
	Diamgree	21	25	30	25
26.	Senters past $\underline{\mathrm{Direc}}$ that they are more grown-up, but they eren's really				
	Agree	16	1)	10	79
	Disagre	5 9	11	10 61	15
27.	If you don't made, other boys make fun of you			-	
	Aprel	14	42	30	100
	Diserse	1/7	53	6	51
20,	Smoking is a very sandy thing to do	_	_		
	Agree	17	17	15	30
	Uncertain	7	11	15	30
19.	Eays who amount our look ofter themselves			-	
	Arm	16.	17	33	31
	Vicertale	16	13	15	2) 68
30,	Rays who smoke go ont with girls more often			-	_
	APPE ALLER	59	63.	65	60
	Disagree	23	20	10	12
31.	In my class, there is a special little group of buys who some in servet				
	Mare	1.3	50	62	1.9
	Disagree	29 Lo	35	10	16
12.	if you don't meate, you will never be a not	-	-	-	-
/**	Arret			,	6
	Disperse	3 92	01	6	1
15.	Ciris like to see a toy smoking a ciservice		<u> </u>	-	-
33.	Ment	50	35	43	30
	Uncertain	20 50	20	35	20
		-			
34	Ty parents are stricter than the tambers, about not allering us to sooks		69		
	Agres	65	11	1.5	12
	Oleagree	2.5	27	143	20
35,	Nice girls never seeks				
	Agree	53 33	57	1/2	58 11
	District	85	32	51.	31

	NOW III - D Questions				
		Saoka Saoka	e tri	er Gook	er too
*6	American and a second a second and a second	2	1 ,	1 5	1 2
,,,,	Constinue my elder brother or stater glass me a chigaratte			1	1 '
	Agree	5	15	1 13	35
		- 6	1 3		8 4
	Diampree	51	82	53	152
37.	Olyls only mode because they think it will attract the boys		T	1	
	Agree	61	60		1 .
		133	10	12	12
	Otolgree	06	26	40	20
35.	My parenta are very strict should not allowing so to decke	-	-	100	-
					į.
	Agree	77	69	49	70
	Uncertain	7	1 8		3 7
	Disagree	16	23	Lie.	23
39.	If a girl scokes eigeration she probably kinnes boys too	-	+	-	+-
	Agree	1			
	Universalin	50	58	1 0	55
	Disagree	28	15	15	27
		100	1 "	000	1 27
40.	Sometimes one of my parents gives me a cigaratte				_
	Apres	- 6		51.	
		1 2	1	24	2
	Disagree	90	91	66	109
it.	The teachers so not seem to mind if we emoke in achool hours	-	-	+-	1
			1	1	В
	Agree	7		1.0	
	Decertain	3	- 3	1 5	3
	Dingree	90	89	85	89
2	The teachers are stricter than my paresta about not allowing us to maske			1-	
			i .		1
	Agree	27	29	46	30
	Uncertain Oloheren	16	25	9	15
		57	57	1.7	55
3.	if parents and teachers make themselves, they should set try to stop children from sanking	-		_	1
	Marco				1
		72	A2	65	40
	Disagree	63	55	27	49
	rever seen to notice advertisements for eighroides		-74	1."	×
	THE SEE TO SOCIOE SUPERSONING FOR ELECTRICAS				1
	Aprel	29	20	40	34
	Uncercain	5	- 5	6	3
	Disagree	66	66	50	60
	t in all right for young people to mochs because they			_	
	DEPT SEC ORDER				
	Agree	2	16	-	
		7	10	20	30
	Diameree	97	80	66	10
. 1	mobile try to stop us from smoking because they are becay	-		-	- 62
	Agree	29	27	51	27
	Uncertain	2 1	8	1	
	Ultigree	76	65	41	65

	BOOK TIE - D Questions	Non-			
		Anoker	Trier	Seohar	foca)
1,7	Funishing children for amobing is useless	*	*	×	*
	Agree Disearce	1,7 8 1,5	62 6 33	77 5 18	57 7 37
48.	; here to see some of the claratte edvartiments	-	-		
	Agree Vecertain Stampree	20 33 70	13 12 65	32 13 55	23 11 66
40.	Says who den't smake have batter smil-control				
	Agree Incorpais Siempree	60 7 13	30 30 80	222	71 9 90
50,	It's only the rough boys who start masking while they are all he achood				
	Agree Governata Olongree	67 8 85	57 0 35	34 7 59	59 8 33
51.	I centrol understand why grown-ups assists so such				
	Afree Unserials Olasgree	72 12 35	60 15 23	13 13	0, 13 23
50,	If you don't mobb you can still be tough and independent				
	Agree Cheerwaln Diamgree	85 5 10	5 9	79 4 15	15 5 10
53.	hope only encin became it is forbidden				
	Aprel Dosernals Clampre	85 25 50	10 10 15	27 9 6)	41 30 45
54.	Boyz who zeeks tend to be builted				
	Agree Onsertado Disegree	26 10 16	6) 10 26	31 2 (4	0; 9 27
55.	If you show the other boys that you can seems, you have proved yourself				
	Agres Unertain Disegres	21 11 67	31 10 59	19 12 59	95 31 63
56.	It morries me that so many grown-ups connect stop				
	Agree three facts Disagree	55 11 92	56 12 30	1/8 32 1/0	60 32 28
57.	live the bogs who doers do well at school who often are the first to start scoking		-		
	Agree Oncertain	63 11 26	55 13 30	32 32 56	55 22 33
58.	If you mode, you probably nother from narres				
	Agree Unsertain Uisagree	8, 16 20	36 37 30	26 11 61	54 35 32

500X	-	b	Questions

Sun- Sunter	Triter	Entire	70161
×	×	*	×
25)	32	32	29
12	11	9	11
64	57	50	61
29	35	551	36
12	21	9	11
59	55	37	55

59.	Tita nore	fün	10	make	1.1	700	ktor	it	14	firblides	
-----	-----------	-----	----	------	-----	-----	------	----	----	-----------	--

		Agree
		Disagree

60. The teachers do not seem to send if we stoke outside make

							۳
4	o	**					
¥	34	nt.	10				
D	Ľ	16	ry	*			

ING SCHIOMATON

These figures give the responses to the four times questionnesses QA and QE, Book III, and QE and QC, Book III.
For the instructions which accompanied each image questionness us the fell set of questionnesses is Appendix 6.

		Boo!	LF	_	_,	DEA	k TIIB L SEL	F	Book BLB SMOKER				Book IDC NON-SMOKER			
DEALS	83	2	8	791.	165	2		Tet.	80	2	8	Tota.	160		8	Tet.
DUMA	55	*	×	*	×	5	15	1	×	8	5	8	8	15	1 1	2
Le Dood et achoel work Underläst. Het so good et achoel work	53 99 27	14 (3)	35 22 43	S 22 32	90 5 5	90 5 5	6 8	90 5	1/s 17 09	19 22 59	33 26 39	29 20 61	83 12 5	80 15 5	70 21 9	00 1k 6
Interested in girls	14 12 15	69 20 22	65 7 8	50 11 30	91 11 37	75 9 18	65 6 10	60 27	86 6 10	90 5 5	50 5	97 5 e	18 24 38	5h 15 33	13 12 15	19 37
Second at sports. Three life . Fut good at sports.	58 13 29	8118	60 16 24	60 13 87	89 5 6	90 5	86 5 9	60 51 60	13 7 80	16 20 13	33 33 10	18 9 73	89 6	67	79 11 13	86 7 7
dertle Unscident Tough	37 37 26	35.29.27	23 35 42	36 37 29	37 19 14	32.00.00	20 10 5h	34 19 47	6 8 8	6 8 85	10 16 71	7 9 10	59 20 19	50 22 20	66 20 16	60 22 18
Often disobedient Underfood	01 11 60	50 14 56	49 15 30	19 12 19	9 ii l3	13 11 76	25 22 23 23	13 10 77	05 6 8	03 7 10	67 13 19	82 7 11	9 65	11 13 %	16 11 7)	10 11 79
Like to be alone Underlind Like to be with a group	23 61	13 9 78	11 5 06	28 7 %	20 7 77	10 6	11. 7 82	16 7 77	6 4 90	53 30	7 7 06	6 12 90	33 24 50	33 32 56	18 13 38	35 34 54
Cood Fighter Underton: DWS much of a Fighter	32 22 16	35 25 40	1.7 25 28	35 16 4	70 11 17	76 11 11	80 80 10	75 11	68 31 85	63 33 25	68 17 15	65 13 02	10 19 41	38 38 38 38	28 35 56	37 28 16
Try to not big	A 8	10 9 01	15 12 73	7 20 13	1 6 90	4 7 86	13 10 77	4 7 86	10 2 2	87 3 10	5h 10 36	14 10 10 10 10 10 10 10 10 10 10 10 10 10	6 7 07	8 7 85	18 20 72	8 0
Thus and thick sheed Unicolded Name everything at once	71 10 17	65 12 23	59 13 28	67 18 18	19 3 6	90	02 7 11	80 5 7	11 0 01	18 10 70	31. 17 50	15 10 25	6000	85 0	75 12 15	82 9 9
Store many following	15 to 15	83 3 3h	t0 3	79 6 17	43 3 36	3 9	17 0 0	05 3 11	64 60 20	75	0) 7 30	F 6 2	15 15	75 6 19	58 7 35	72 6 02
Doruffy Dodeoged Hest and sleen	6 89 73	7 85 60	30 56 65	7 92 71	3 9 8	30 87	D 12 80	4 9 87	20 20 21	69 27 35	29	09 15 16	402	10 20 86	12 16 72	5 11 86
A bit of a bully Undecided Do not bully	16 11 73	25 15 60	34	21 13 66	9 83	12 10 30	15 1) 72	11 10 79	87 6 7	85 2 0	16	62 1 20	10 k 11 79	11 1) 7s	15 15 70	11 22 77
Like to do forbidden things Underload Do not do Forbidden things	16 17 67	33 23 66	20	90	34 10 36	23 11 66	36 10 50	20 11 69	87 5	65 7 8	69 15 16	13 9	11 11 75	15 10 72	17 13 70	12 25
No. to be group-up Undestood. Do not yet want to be grown-up.	53 11 36	62 9 29		10	60 7 32		76 7	66 7 27	86 5	05 5 10	6	5	11	45 22 45	10	64 32 65

		8	ir.		Г	TOTAL SILP SHOULD				1014	1022					
DONLE	105	7	2	fit,	103	2	0	201	NS	2	8	109	165	7	2	201
15. Sanctimes swear Underfied De not swear	% 56 12 31	% 84 6 10	# 69 6 5	1 60 9 22	19 19 19 79	31 61	Maria N	# 26 9 65	S 50 50 4	95 20 2	93 4 3	% 90 3 3	50 50 50	47 10 63	17 m 14	\$ 12 12 13 13 13 13 13 13 13 13 13 13 13 13 13
Obend my manage	29 14 58	38 36 46	60 16 20 ₁	35 36 68	15 6 78	16 7	31 61	38 7 7	88 6	88 6	79 10 11	67 67	16 9 75	23 3 72	27 9 64	18 9 78
Often monomenful Undecided Orten a failure	63 29 11	63 20 17	60 81 29	62 20 18	68 7 4	97 6 6	87 6 7	80 6	14, 11, 75	16 16 68	13 23 25 28	19 15 65	82 11 7	81 12 7	72 24 24	90 12 8
Try to extract girls Underlied	20 12 60	11, 11,	64 10 25	(p) 13	45 11 44	63 30 27	75 9	55 11 34	95 4 D	90 1,	87 8	5 7	44 13 43	58 12 35	56 12 44	17 12 13
A bit of a cing Undertood	10 37 53	6 36 50	5 26 59	0 36 57	4 21 75	2 22 26	A 22 SA	19 77	14, 12, 15	11 12 77	9 24 77	12 12 76	22 35 43	27 35 38	1,6 84 30	20 33 39

APPENDIX 5

Construction of attitude and behaviour scales and other variables used in the correlational analysis

- A5.1 The construction of attitude and behaviour scales.
- A5.2 Other variables obtained by transformation of questions.
 A5.3 Additional scales and variables smokers only or smokers
- and triers.
 - Note: (1) Location of scales

scales 1 - 19 and 22 are in A5.1 items 23 - 42, 64 - 82 and 85 - 93 are in A5.2 scales 20, 21, 43, 44, 46 and items 45, 47 - 63 83, 84

(2) Although all the variables shown in this appendix were included in the analysis, a few of them are not referred to specifically in the main text.

5-1 THE CONSTRUCTION OF ATTITUDE AND BEHAVIOUR SCALES*

The purpose of constructing an attitude scale is to be able to order people in terms of a particular dimension, rather like measuring their heights with a ruler. One could, of course, measure their attitudes towards something by means of one question on the lines of: Are you "for or against" ? But there are two major reasons for preferring to measure attitudes by means of an aggregate score on a number of questions taken together. The first reason is that any single attitude question contains a certain amount of "measurement error", i.e. there is a certain amount of inconsistency in any individual's responses to it. The second reason rests on an assumption: namely that a large number of people's actions and opinions in certain areas of their lives are manifestations of more general attitudes or predispositions. By adding a number of questions together we are not only able to eliminate error (on the principle that errors will cancel each other out); but we are also able to accumulate the "common content" of a number of questions, and thus measure the more basic (and consistent) attitude which lies behind people's answers to them. These advantages. however, can only be gained if the questions are positively correlated with one another (i.e. are really in the same area). If they are not positively correlated or are negatively correlated with one another, then in the former case, adding them together serves no useful purpose as they do not share any common content. and in the latter case adding them together may mean that we end up with a scale measuring a negative attitude when we want to measure a positive one.

The justification for adding questions together to obtain an artitude scale resist on the existence of correlation between them. If the questions are strongly correlated then only a few questions will be required to obtain a reliable measure of the attitude, if the questions are mode-rately correlated then a larger number of the questions are mode-rately correlated then a larger number of adopted, croshach's a coefficient of reliability which we adopted, croshach's a coefficient of the control of

- $\alpha = \frac{n\overline{r}}{1 + (n-1)\overline{r}}$
- n = the number of items in the scale.
- r = the average intercorrelation between the items in the scale
- For a further simple account of the ideas behind attitude scaling see Oppenheim (1966). The scaling model we adopted in this study can be identified with Oppenheim's 'factorial' scale p.142.

Fixer analysis (Barmas 1860) is a technique which can be used to identify contered it them within a larger set, which are relatively highly correlated among themselves. It was used on the pilot data to identify the sets of questions which might form scales. From each cluster the set having the highest co-relative as selected for the scale. Twenty-three scales were ordinated in this way and the items forming them were all industry of the content of the scale. Twenty-three scales with the scale scale to the s

In order to obtain the scale score for each boy, the items comprising the 22 remaining scales were dichotomised fossally at their medicanly penaltive response was given a score of 1 medican score of the score of 0. A boy's total score was obtained by summing the scores for his positive responses. Thus in a scale composed of 5 tems, to three of which he had given a ponitive response, his total scale score would be 3 out of a possible maximum of 5 and a minimum of 0.

The scales which were used in the main survey analysis and the items comprising them are shown below. For each item the answer which represented a positive response is shown together with the proportion of all boys in the main sample (weighted) who gave it. Below each scale a is given for the pilot sample and the main survey sample, followed by the distribution (unweighted) of the boys in the main survey sample across the full range of the scale. Taking the first scale 'Worry about adult smoking' having an a for the main sample of .56 as an example, 18% boys received a score of 4 and 11% received a score of 0. This means that 18% boys gave a response in the 'worried' direction to all the 4 items in the scale and 11% gave a response of 'not worried' to all the items. The other boys showed varying degrees of worry indicated by the number of 'worried' responses they gave; the position on the scale which was most commonly held was shown by a score of 3 i.e. the largest number of boys gave 3 'worried' responses. In most tables in the report (Part II), the scales are dichotomised at their medians so that each of them represents the presence or absence of some attribute. In each distribution of scores across the whole scale an asterisk shows the point at which the scale was dichotomised.

1.	Worry about adult smoi	king					
	Item			Response	Sco	re	Propor- tion of boys scoring
D 21	People who smoke are t they can never give it u	rapped, p		Strongly agre or agree		1	44%
D 25	It upsets me to see how grown-ups are when the give up smoking	w try to				1	62%
D 51	I cannot understand why ups smoke so much	grown-				1	64%
D 56	It worries me that so m grown-ups cannot stop smoking	2ny				1	60%
	α (pilot) = .58 α (main sample) = .58				-		
	Total scale score	0	1	2 * 3	4		
	Proportion of boys receiving each total score	11%	175	25% 20%	101		h-t-1 500

	TOMA SCOLE	11%	11%	20%	29%	18	1%	(total 5601)
2.	Parents permissiveness	(owards	5700	kong				
	Item			Respon	ise	Scon	re	Propor- tion of boys scoring 1
D 34	My parents are stricter t teachers, about not allow to smoke	han the ing us		Strongly agree or disagree			1	28%
D 38	Sometimes, my elder bro sister gives me a cigaret	ther or		Strongly agree, or certain			1	18%
D 38	My parents are very stric not allowing me to smoke	rt about		Strongly agree or agree			1	23%
D 40	Sometimes, one of my pa gives me a cigarette	rents		Strongly agree, or certain			1	11%
	α (pilot) = .65 α (main sample) = .56							
	Total scale score Proportion of boys receiving each	0 *	1	2	3	4		
	total score	54%	245	16%	5%	2	100	(total 5601)
			228					

3	١.	Desire for adulthood and independ	ience								
		Item			Respo	mse	Sc	core	t	Propor- ion of	
										oys coring I	
,	3 3	I am getting very fed up with school			rongly ragre		10		1	45%	
	G 5	I want to grow up as quickly as possible							1	43%	
	G 13	Adults never understand us							1	41%	
	G 14	I am quite happy to be at school and not yet grown-up		50	isagre irongl gree				1	33%	
٠.	G 18	I very much want to start earning some money soon			trongl r agre			-	1	75%	
		α (pilot) = .56 α (main sample) = .68					_				
		Total scale score 0 1	2	٠	3	4		5			
		Proportion of boys receiving each total score 13% 22%	24	5	19%	14	55	7%	(to	tal 5801)	
	4.	Belief in independence of smoke	rs.								
		Item			Res_{i}	tomse		Se	ore	Propor- tion of boys scoring I	
	D 2	Boys who smoke are more adventurous			Strong agree certai	or us			1	48%	
	D 2	Boys who smoke can look after themselves				**		-	1	32%	
	D 5	If you don't smoke you can still be tough and indepen- dent			Disag stron agree	gly di			1	10%	
	D 5	5 If you show the other boys that you can smoke, you have proved yourself			Stron agree certa	or u			1	37%	
	D 2	6 Smokers just think that they			Unce		dis-				
		are more grown-up, but they aren't really			agree	gly di		-	1	21%	
	D 2	8 Smoking is a very manly thing to do			Stron agree certa	oru			1	28%	
	D 3	2 If you don't smoke, you will never be a man							1	9%	
		α (pilot) = .68 α (main sample) = .62									
		Total scale score 0 1	* 2		3	4	5	6	7		
		Proportion of boys receiving each total score 25% 27%	į 22	1%	14%	8%	4%	2%	0	(total 560)	L)
			25	29							

Anticipation of adulthood Item Response Score Proportion of boys C 13 Go out drinking beer or spirits scoring I I have actually with friends done this C 17 Drive a car 28% 24% C 18 Go to coffee bars 50% C 19 Go to a public dance hall 30% C 21 Read a forbidden book 37% C 22 Stay out late with a group of older boys or girls 38% or (ptilots) a (main sample) = .72 Total scale score 0 1 * 2 Proportion of boys receiving each

27% 22% 18% 14% 10% 7% 3% (total 5601)

total score

D 00	Belief in the sexual attractiveness of tem	Response	s	core	Propor- tion of boys scoring;
D 20	Girls who smoke go out with boys more often	Strongly agree or agree		1	
30	Boys who smoke go out with girls more often		•		58%
33	Girls like to see a boy smoking a cigarette	**	-	1	60%
39	If a girl smokes a cigarette sho	-	-	1	34%
	probably kisses boys too		-	1	55%
	α (pilot) = .74 α (main sample = .71				
	Total scale score 0 1	2 * -3	4		
	Proportion of boys				

21% 25% 18% (total 5601)

19%

7.	Feelings	of infernoral

receiving each

total score

7.		Feelings of theriority [lem			Re	apc	wse		Sc	ore	Proportion of boys scoring is
В		Feel you can't keep up others			Ofte					1	69%
E	10	Cannot do your school vas most others	vork as w	ell		"			-	1	72%
E	11	Feel that most things a difficult for you	re too						-	1	68%
		α (pilot) = .63 α (main survey) = .61									
		Total scale score	0	1		2	*	3			
		Proportion of boys									

14% 18% 40% (total 5601)

8. Extent of social pressure to smoke

Proportion of boys receiving each

total score

0.	Item	Response	Scc	re	Proper- tion of boys scoring I
D 17	Others are often trying to encourage me to smoke	Strongly agree or agree	-	1	56%
	Most of the boys in my class have a smoke now and again		-	1	54%
D 23	All my best friends smoke some- times		-	1	35%
D 27	make fun of you		-	1	42%
D 31	In my class, there is a special little group of boys who like to smoke in secret		-	1	49%
	α (pilot) = .59 α (main survey) = .78		5		
	Total scale score 0 1 2				

15% 19% 23% 21% 16% 6% (total 5601)

9		Frustration				
		Item	Response	Si	core	Propor- tion of boys scoring 1
		How often does it happen that you:				
Е	4	Feel you don't have enough money?	Often or			
			sometimes	=	1	68%
В	5	Cannot get sweets when you want them?			1	67%
E	6	Don't know what to do with yourself?				
ъ	7		"	*	1	76%
		Feel your parents don't under- stand you?	**		1	70%
Е	8	Feel there are too many rules and regulations?			,	
Е	2	Get punished at school?				88%
		Oct politization at Bellout 7		-	1	84%
		α (pilot) = .61 α (main sample) = .53				
		Total scale score 0 1 2	3 4 + 5	В		
		Proportion of boys receiving each				
		total score 3% 2% 6%	15% 24% 29%	33	8% (t	otal 5601)

10. Rebelliousness ItemResponse Score Proportion of boys scoring 1 C 3 Refuse to be told what to do I have actually done this 46% C 4 Lose my temper when asked to run an errand 50% C 6 Argue back at a teacher 35% C 8 Not doing the best I can in my school work 27% C 10 Refuse to obey the prefects 52% a (pilot) α (main sample) = .82 Total scale score 0 Proportion of boys receiving each total score 20% 22% 22% 19% 12% 5% (total 5601)

11	. Delinquency Response Score Propor- tion of boys scoring I	
С	1 Make fun of a policeman Thought of it or actually done it = 1 53%	
c	2 Get into fights	
0	" = 1 39%	
	" = 1 43%	
С	11 Break into a building	
	11 Break into a building = 1 49%	
	α (pilot) = .75 α (main sample) = .70	
	Total scale score 0 1 2 ° 3 4 5 6	
	Propertion of boys receiving each total score 10% 18% 20% 17% 14% 11% 9% (total 5001)	

12.	Belief in punishment Item		Res	ipani	e		Scor	e	Propertion of boys scoring I
	A boy who plays truant from school should be severely punished		Stron or a		ıgrı	96		1	70%
	A boy who tells the teacher a fib to keep out of trouble sho be severely punished			,,				1	61%
G 17	A boy who copies from some else in a school-test should severely punished	one be		,,				1	68%
	α (pilot) = .50 α (main sample) = .66			2		3			
	Total scale score	0	1	z		٥			
	Proportion of boys receiving each total score	13%	20%	27%		40	%		(total 5601)

233

1	3.	Tension				
		Item	Response	Sci	ore	Propor- tion of bays scoring I
F	1	Do your nerves often feel on edge?	Yes		1	
F	2	Do you often have an upset stomach?	160			33%
F	5	Do you often have headaches?		100	1	37%
P		bo you often have headaches?			1	32%
-		Do you often feel as if you want to scream?	"		1	15%
F	8	Do you shiver sometimes, even in warm weather?			1	
F	9	Do you feel you want to chew or		-	1	39%
		suck something most of the time?	**		1	40%
F	10	Do you find it difficult to relax?		-	1	30%
		σ (Pilot) = .63 α (main sample) = .83				
		Total scale score 0 1 * 2 3	4 5	6	7	
		Proportion of boys receiving each				
		total score 19% 22% 22% 17	% 11% 5%	2%	1%	(total 5601)

14.	Bellef that smoking reliev	es tensio	**					
	Item			R	rspouse	S	core	Propor- tion of boys scoring I
D 3	Smoking makes you feel on of the world	top		Stro	ngly agre	е _	1	15%
D 7	Smoking helps you to feel mat ease in a group	nore					1	40%
D 9	Smoking helps you to feel n							
D 10						-	1	37%
D 12	Smoking can help people wi feel nervous or embarrasse	ed					1	64%
	α (pilot) = .64 α (main sample) = .65					-		
	Total scale score 0	1		2	3	4		
	Proportion of boys receiving each total score 24%	29%	2	0%	20%	7%	6	otal 5601)
				~,;;	44.0	1.50	(6	ocar 2001)

15.	Opposition to dissunders Item		Resp	ons e	Sco	re	Proportion of boys scoring !
	If parents and teachers smoke themselves they should not try to stop children from smoking		Strong or agr	ly agree ee	-	1	40%
	It is all right for young people to smoke, because they don't get cancer	D			*	1	10%
D 48	People try to stop us from smoking because they are bossy and nosy					1	27%
D 47	Punishing children for smoking is useless				-	1	57%
	α (pilot) = .59 α (main sample) = .66						
	Total scale score 0 1		3	3	4		
	Proportion of boys receiving each total score 30% 3:	3%	21%	12%	4%	(t)	otal 5601)

16.	Belief that smoking is not day,	agerous to children						
	Item			Res	ipans e	Sco	re	Propor- tion of boys scoring I
D 1	Smoking is only dangerous to older people			Stron	gly agree ree	-	1	36%
D 5	Smoking is only dangerous if you have been smoking for many years						1	52%
D 15	Smoking is only dangerous if you smoke a lot						1	61%
	α (pilot) = . 86 α (main sample) = . 68							
	Total scale score 0	1	*	3	3			
	Proportion of boys receiving each total score 28%	23%		29%	20%	(total	560	1)

17.	Disapproval of smoking			
	Item	Response	Score	Propor- tion of boys scoring 1
D 2	Smoking is a dirty habit	Strongly agre	e _ 1	66%
D 4	Smoking is bad for you	n mgr cc	= 1	83%
	Smoking is very enjoyable	Disagree or strongly dis- agree	- 1	58%
D 11	There is nothing wrong with smoking	"	= 1	72%
D 13	All cigarette machines should be taken away	Strongly agre or agree		49%
D 14	Boys who are caught smoking should be punished much more than they are	or agree		
	α (pilot) = .82 α (main sample) = .79		- 1	52%
	Total scale score 0 1 2	3 4 * 5	. 8	
	Proportion of boys receiving each total score 7% 9% 11%	14% 18% 21		total 5601)
18,	Extent to which smoking can affect ges	teral health**		
	Item		Score	Propor- tion of boys scoring I
A 11(b) How can smoking affect your health?			scoring 1
**	2) It weakens you	True	- 1	71%
	R damages your mouth and throat		- 1	81%
**	6) It damages your teeth		= 1	65%
111	7) It gives you bad breath		- 1	75%
	α (pilot) = .62 α (main sample) = .72			10%
	Total scale score 0 1	2 * 3	4	
	Proportion of boys receiving each total score 8% 9%	21% 30%		čal 5801)

**N.B. Scales 18, 19, 21 and 22 were formed from staplementary questions out a main question. The proceedings given for the possible regiones to said item are based on the total sample of boys — not just those who asswered the supplementary. It should also be noted that the same score O was proceeding to the possible of the same score O was first, and to all boys who were possible to any of the beautiful control of the same score of was proceeding to the same score of was proceeding to the same score of was proceeding to the same score of the same score of was proceeding to the same score of the sam

				ugu is ine; sponse	Scor	e **	Propor-
	Ite						tion of boys scoring 1
15e)	4447	children smoking. Why is that?					
	a)	Because children make up the minds about smoking, whateve advertisements say	er the	True	=	1	44%
	b)	Because the advertisements a not good enough to make child stop smoking	iren	**		1	25%
	e)	Because children don't take a notice of the advertisements			-	1	39%
	e)	Because children don't believ the advertisements		**	-	1	30%
	f)	Because telling children not t smoke just makes them smok all the more	ie :e			1	\$0%
		α (pilot) = .73 α (main sample) = .73					
		Total scale score 0 1	2	3 * 4	5		
		Proportion of boys receiving each total score 19% 4	% 129	24% 27	% 14	% (total 5601)
22.	De			Response	Sc	ore	Propor- tion of boys scoring l
	b)	If the danger of lung cancer					
A 10	,	does NOT put you off smake Why is that?	ng.				200
A 10	1	does NOT put you off smoots Why is that? I don't worry about it	ng.	True		1	225
A 10		does NOT put you off amont Why is that?	ng.	True		1	225 215
A 10	13	does NOT fad you off smoot Why is that?	mg.				
A 10	1	does NOT put you off smoot Why is that?	mg.			1	21% 13%
A 10	1; 3	does NOT pat you off smoot Why is that?	mg.	**		1 1	21% 13% 16%
A 10	1,3	does NOT pet you off smoot why is that ? I don't worry about it Non-smokers get lung cancer Very few smokers get lung cancer If you are going to get lung cancer smoking won't make any difference If hasn't been proved that smoking cancee lung smokers going to go	mg.			1 1 - 1	21% 13% 16%
A 10	1,3	does NOT set you off smoot why is that it. I don't worry about it. Non-smokers get lung cancer. Very few smokers get lung cancer If you are going to get lung cancer smoking won't make any difference. If hasn't been proved that smoking cancer	mg.			1	21% 13% 16%

** See footnote on previous page.

5. 2 OTHER VARIABLES OBTAINED BY TRANSFORMATION OF SINGLE QUESTIONS*

A number of questions which had been shown to destriminate strongly between motions and some-innerfer were transformed two remindes row the purposes of correlational analysis. In each case the question was re-corded (i.e., accorde) and the saneware anothered to the pattern of a simple scale. In the contract of the co

Itex	n Question					
23	(IIIA, 1)	Number of older sible	ings who smoke			
		scored as originally of	oded (Appendix	3)		
24	(IIIA. 4)	Parents would not pur	tish smaking	old code	80	ore
			ould punish ould do nothing	(1) (2) + (3)	:	(
25	(IIIA. 6)	Number of friends wh	o smoke			
		scores obtained by re	flecting original	codes (app.	3)	
26	(IIIA. 2)	Extent to which cigar- the house	ettes around	old code	80	
			often		a c	
			sometimes	(1)	:	20.00
			no	(3)	**	1
27	(IIIA. 3)	Parents smoke		old code	80	ore
			one or both neither	(1)+(2)+(3) (4)	÷	1 2
28	(IIIA, 10a)	Not put off smoking by	the danger			
		of lung cancer		old code	80	ore
			yes	(1)		0
29	(I, 1)	Age	no	1-1	-	1
		scored as originally c		3)		
30	(L, 2a)	Number of older broth	ers and sisters			
		scored as originally c	oded (Appendix 3	1)		
31	(1, 3, 4, 5)	Social class of father		old code	sec	re
		Registrar general's classification of	1 and 2	(1)	-	1
		occupations N.B.	3 Non-manual 3 Manual	(2)	1	2
		less than 5% of the	4	(4)		4
		sample came into	5	(5)	÷	5
		categories (6)+(7)	D. K.	(6)		6
		Dead/retit	ed/unemployed	(7)		7
32	(1,7)	Amount of time out of		old code	sec	ге
			estly at home	(1)	-	1
			lf and half	(3)	=	3
		m	stly out	(2)	=	3

For a more detailed account of the recoding operations involved in transforming questions into variables see Bynner (1966).

```
Item Question
                Prefers to be with others
                                                       old code score
33 (I.8)
                                                       (1) + (3)
                             on my own and don't care
                             with other children
                                                          (2)
                 Frequency of cinema going
34 (I, 11)
                 scores obtained by reflecting original codes (Appendix 3)
                 Believes family is working class
                                                       old code score
35 (1.17)
                             upper middle class
                             middle/no particular/DK (2)+(4)+(5) =
                             working class
```

36 (I,18b) Form position (low)

39 (I, 20)

64-75

scores obtained by reflecting original codes (Appendix 3) 37 (L.19a)

scored as originally coded (Appendix 3) Does not save money regularly

(f. 19bi) scored as originally coded (Appendix 3) Does a paid job

old code Y08

40 (L. 23a) Frequency of feeling nervous or lense scores obtained by reflecting original codes (Appendix 3) Not used in correlational analysis. 41-42

Self image, ideal self image, image of smoker and image of non-smoker, scored in terms of Educational Success, Toughness and Precocity.

Each image received a factor score from each boy which was a weighted sum of his responses to all the 19 items in the image questionnaries (HA, HB, HHB, HHC). The regression weights which were used are shown below. They were computed in the factor analysis of the image questionnaire data (See Harman, 1960, p. 338 for details of the factor scoring method used).

Factor score estimating weights for scoring each image in terms of Educational Success (1) Toughness (II) Precocity (III).

	T	п	Ш
1	0.121 -	0.017	0.053
2	0.016	0.028	0.449
	0-123 -		
	0.070		
	0.112 -		
6	0-004	0-195 -	0.135
7	0-012 -	0.376	0.003
	0-122 -		
	0-128		
	0.058 -		
11 -	0.131 -	0.005 -	0.024
12 -	0.113 -	0.063	0.025
13 -	0.100 -	0.041	0-069
	0.025 -		
15 -	0-079	0-043	0-140
16 -	0-104	0-006	0-062
17	0-131 -	0.039	0+073
18 -	0-000	0.029	0.424
19 -	0-002	0.407	0.074

76 (I, I

14.15.1	n 6) Smoking Experience				
				sco	re
	Non-a Trier Smok	moker			1 2 3
	Non-smokers had never smoke ever smoked I cigarette at the Prieze had smoked more than I up smoking or were smoking le at the time of the survey. Smo more cigarettes a week at the t N.B. These definitions are which were used for smoking el classroom (Appendix 2.1)	time of cigare ss than kers we ime of t differen	the survey, tte but had gi 1 cigarette a re smoking l he survey. I from those	ven	ak
T, 13)	Mixed group social life		Old code		score
	group of boys and girls/gir. boy/boys/alone/adults		(3)+(5) (1)+(2)+(4)+(6		1 0
	(owing to a coding error this vi in the correlation matrix, App	ariable (endix 6)	does not appe	ar	
app. 2)	Academic ability rating (low)		Old code		score
	I.Q. 84		(5)		5
	I, Q, 85-94 I, Q, 95-105+	A E	(4)	÷	4 3
	I, Q, 106-120 I, Q, 131+		(2)	=	2
L 10)	Plays for school team		(1)	-	1
, 10)	Ploys for school ream		Old code		score
		yes no	(1)	÷	0
I, 9)	Believes could get lung cancer smoking	from	Old code		score
		yes no	(1)	-	2
(, 6)	***	110	(2)		1
L, 0)	Likes going out with girls		Old code		score
	one of three things likes bes anything else		(11) (1)to(10)+(12)	-	0
(, 22d)	Wonts to buy clothes		Old code		score
		yes no	(1)	-	1
	Grammar school		(0)		score
	Grammar school Secondary Modern and Comp	rehensi	ve		1 0
	School year				score
	1st year 2nd year				1
	3rd year				2
	4th year				4

Item	Question	
87	(IIIA. 5a)	Right age for a boy to start smoking
		scored as originally coded

88	(IIIA.	5b)	Right age for a girl to start smoking
			second as printedly coded

89	(L, 6)	First of three leasure activities liked most
		(Mot wood to correlational analysis)

Vocabulary Score The boys' vocabularies were assessed by means of the synonym part The boys' vocabularies were assessed by means of the synonym part

The long's recalculatives were assessed by messes of the dipulsed has the first point of the proposition of

Percentile scores for the synceym part of Raven's vocabulary test

Percentile	Chronological Age in Years										
points	111	12	121	13	131	14	15				
95 -	22	25	27	27	28	30	31				
90-	22	23	25	26	27	28	29				
75 -	19	20	22	23	24	24	26				
50-	17	18	18	19	21	21	22				
25 -	14	15	15	17	17	18	18				
10-	11	12	13	13	14	15	15				
5-	9	10	11	11	12	12	13				

The percentile groups were scored as follows for the correlational analysis.

ercentile Group	Score
95%-100%	1
90%- 94%	2
75%- 89%	3
50% - 74%	4
25% - 49%	6
11%- 25%	6
6%- 10%	7
0% - 5%	Ř

5.3 ADDITIONAL SCALES** AND VARIABLES - SMOKERS ONLY OR SMOKERS AND TRIERS SCALES
Scales

Proportion of

20. Extent of desire to give up smoking

Ite	2001	Response	5	core	smokers and
1 e)(l)	Why did you stop smoking - for which of these reasons?				triers scoring 1
2 1)(i1)	If you want to stop smoking. Why is that?				
1.	I didn't/don't like smoking	True	E	1	40%
4.	I thought/think I might get lung cancer, , ,			1	53%
5,	I thought/think smoking was/is bad for my health, , ,			1	67%
6,	I thought/think smoking was/is a dirty habit			1	40%
7.	I thought/think I wouldn't/won't be fit for sports		_	1	57%
8,	I wanted/want to prove that I could/can stop,			1	46%

o (pilot) = -66 (N.B. Calculated only for triers)
o (main sample) = -73

Total scale score 0 1 2* 3 4 5 6

Total scale score 0 1 2* 3 4 5

Proportion of boys receiv-

Ing each total score 29% 8% 10% 15% 18% 13% 7% (total 2555)

^{**} See note relating to scales 18, 19, 21 and 22 in Appendix 5.1

21	Extent of rejection of bei	ief that 1	hour come	er will	result t	rom smoking
	lon		Response			Proportion of smokers
-) If the dauger of lang can NOT put you off smoking is that?	cer does , Wky				scoring 1
7)	I don't smoke enough to cancer	get lung	True		1	42%
8)	I don't breathe the smok down into my lungs	e right			1	17%
10)	I can't stop smoking			-	1	28%
	α (pilot) = -53 α (main sample) not ca	lculated				
	Total scale score	0	1*	2	3	
	Proportion of boys rece ing each total score	iv- 28%	425	27%	3%	(total 877)
Τ,	ltem	1	tespon8e	Sco	re	Proportion of smokers scoring 1
43.	(HIIC . 21) Social Activity Smoking	y				
	When do you smoke? 1. At parties 3. In coffee bars 4. In dance halls 5. At bowling alleys.		Yes	:	1 1 1	54% 58% 50% 37%
	α (main sample = -88					
	Total scale score	0	1*	2	3	4
	Proportion of boys receiving each total score	24%	15%	17%	17%	25% (total 877)
44.	(IIIC , 2f) Boys' Grosp Smoking		Respo	use S	core	Proportion of smokers scoring 1
	When do you smoke? 6. In parks 7. In the country 8. In the street 11. In an empty building	15	Yes	:	1 1 1	77% 76% 70% 51%

α (main sample) = '79 Total scale score Proportion of boys receiving each total

score

31% 32% (total 877)

19%

^{9%} ** See note relating to scales 18, 19, 21 and 22 in app. 5.1

						Propos		
46.	(IIIC, 2f)	Therapeutic Smoking	Respo	mse s	core	smoke scorin,	rs	
		you smoke?						
	12, Whe	n I feel bored	Yes	- 1	1		669 439	
	15. When	n I want to			-			
		entrate,,,	"	-	1	3	369	
	(HIC.2a) Why do y	ou smoke now?						
		smoking calms	_					
	me down		True	-	1	4	149	
	α (main s	ample) = :86						
	Total sca	le score 0	1+	2	3	4		
	Proportio							
	receiving total seco		19%	17%	17%	18%	. (1	iotal 877)
-			_					
	Other var	iables						
45	(I, 16)	Amount smoked						
		Scored as originally	coded (app	.3)				
47	(IIIC, and							
	B.la)	Age first smoked						
		Scored as originally	coded (app	.3)				
48	(IIIC, and							
	B. lc)	Smoked first cigaret of social pressure	te because		Old	code		score
		wanted to know was like	that smok	ling	a			1
		dared/showing of		to				
		be like friends.			(2)+(3)+(4)		2
49	$(\mathrm{IIIC},2n)$	Smokes because frie	nds smoke		Old	code		score
			tre		(3		=	2
_			fal	se	- (2	1)	-	1
Item	Question							
50		Smokes because can	t sine it s		Old	code		score
			, and it is	true		1) -		acore 2
				false		2)		1
51	(IIIC . 2a.)	Smokes because smo	king calm	s him	Old	code		score
				true	(1			2
				false	(2	3) =		1
52	(IIIC.2e)	Amount spent on cigo	erettes					
		scored as originally		pendix :	3)			

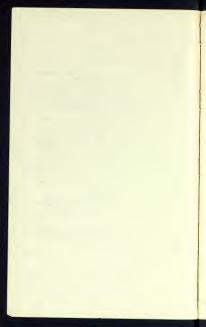
Item	Question				
53		Smokes mostly in company	Old code		score
00	(HIC:=8)	Only/more with other children	(1)+(2)		2
		About the same/more/only on my own	(3)+(4)+(5)		1
54	(IIIC .21)	Wishes to stop smoking	Old code		score
		Want to stop Mean to go on	(1)		1
			Old code		score
55	(IIIC,2h)	Inhales ves			score 2
		no no	(2)		ĩ
		Wants to stop because parents don't			
56	(IIIC.21)	like him smoking			
	(ii)	If you want to stop smoking. Why is that?	Old code		score
		My parents don't like me	(2)		2
		smoking Anything else	(1)	-	1
57	(IIIC.21)	Wants to stop because of cost	Old code		score
		 I think smoking costs too much Anything else 	(3) (1)+(2)+(4)to(8	,)-	1
58	(IIIC , 21)	Wants to stop because of long cancer			
		 I think I might get lung cancer Anything else 	(4) (1)to(3)+(5)to(8	=)=	2
59	(IIIC.21)	Wants to stop because won't be fit for sports	Old code		score
		 I think I won't be fit for sports Anything else 	(7) (1)to(6)+(7)+(8)-	1
60	(IIIB,1ei	2)Stopped because parents didn't like it	Old code		score
		Parents didn't like it Not because parents didn't like it	(1) (2)	-	1
61	(IIIB.lie	3) Stopped because smoking cost too much	Old code		score
		Smoking cost too much	(1)	~	2
		Not because smoking cost too much	(2)	-	1
62	(IIIB.1e	(4) Stopped because thought might get lang cancer	Old code		score
		Lung cancer Not because of lung cancer	(1) (2)	=	1
		945			

63	(IIIB.1ei7)	Stopped because thought wouldn't be fit for sports	Old code		score
		Fit for sports Not because of fitness for sports	(1) (2)	-	2
83	(IIIC.2a)	Smokes to feel big	Old code		score
		true false	(1) (2)	2	1
84	(I,23b)(d))	Smokes a cigarette uken feels nervous	Old code		score

APPENDIX 6

Correlation matrix of attitude and behaviour scales, and other variables related to smoking behaviour

- Notes: (1) For convenience, the correlation matrix has been rearranged largely in accordance with the results of an elementary linkage analysis, (McQuitty, 1957) This pointed to clusters of variables which were relatively highly correlated with each other, and less highly correlated with other variables.
 - (2) For details of the answers corresponding to each score on the variables and for details of the construction of the scales see Appendix 5. Bracketed column numbers of the matrix identify the variables in Appendix 5. The matrix contains all the variables described in Appendix 5 except the 12 image scores (variables 64-75), and those which apply to smokers and trier only (Appendix 5.3).
 - (3) The name of each variable describes the direction of a high (positive) score. For example in the case of the dichotonous variable 'Doesat' save money' (38) the score of 1 was given to the boy who said 'No' in answer to the question 'Do you save any of this money?" (Book IQ, 19 ba), and the score of 0 was given to the boy who said 'Yes'.
 - (4) The measure of correlation used is the product moment correlation coefficient (See McNemar, 1982 for details of its computation and interpretation). Decimal points are omitted from the coefficients shown in the matrix.
 - (5) Because of a re-coding error variable 77 ('Mixed group social life') does not appear in the correlation matrix. Its correlations with other variables shown in Table 5.2 were calculated by hand.





Programs of feeting narrows or tenna (60)

I substitute the substitute account the house (20)

Nowless of offer northern and nature (30)

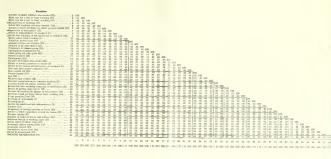
Rathern Smith 1 is worthy class (20)

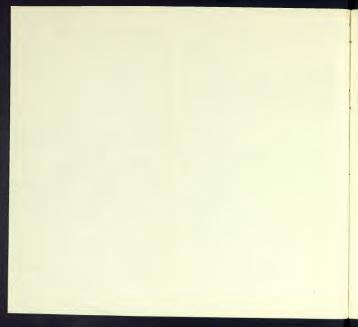
Battern Smith 1 is worthy class (20)

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APPENDIX 7

Discriminant analysis

Discriminant analysis*

Discriminant analysis was first put forward by Flahar (1965) as a means of finding the linear function of a number of variables which would best discriminate between two populations. Algebraically the problem may be expressed as follows. Given Algebraically the problem may be expressed as follows. Given ample from each of two populations, Indi bx, etc. in the first of the problem of the probl

BD = (N, +No -2) d**

Where B = vector of discriminant coefficients (B1 B2 B2 etc.),

D= dispersion matrix of the x's.

 $N_{\text{L}},\ N_{\text{Z}}$ = the number of observations in each of the two samples respectively.

d = vector of differences in the means of the x's between the two samples.

Since Fisher's original account the method has been extended to tackle the problem of discrimination between more than two populations, and its usefulness in the light of its relation to other multivariate techniques has been evaluated (Tatsuoka and Tiedman, 1954, Cooley and Lohnes, 1962, Kendal and Stuart, 1966). Traditionally, it has been used as a means of determining: first. whether two (or more populations) can be considered statistically distinct, and secondly to which of the populations a new member should be assigned i.e. as a principal of taxonomy (for examples, see Garrett, 1943; *** Gales, 1957; Kelly, Veldman and McGuire 1964 and Porebski 1966b). But King (1967) has recently pointed out that it is also a useful tool in the development of explanatory models if attention is focused on the coefficients of the discriminant equation rather than the size of the discriminant function itself. These coefficients, when standardised by multiplying them by the standard deviations of the variables to which they apply, can show the relative importance of the different variables in bringing about the discrimination between the two populations. It is also possible to treat the discrimination as a regression problem in which a dichotomous variable (representing the two populations) is regressed on the discriminator variables. On

It is hoped to give a fuller account of our use of discriminant analysis in a later paper.

^{**} This discriminant equation taken from (Kendal, 1957) is one of many in the literature which differ from each other by the constant by which d is multipiled (in our equation N₁ + N₂ - 2)

^{***} Garrett's paper gives one of the best introductory accounts of two group discriminant analysis.

this basis the multiple correlation coefficent (R) can be obtained, and interpreted to show the extent to which the discriminator variables can 'explain' variation in the dichotomous variable.

In this study discriminant analysis was employed to serve all these different ends. We used it to determine: first whether nonsmokers and smokers were significantly different from each other in terms of a number of variables; secondly, whether triers were closer in their characteristics to smokers or non-smokers; and thirdly, the extent to which the variables could 'explain' smoking experience. In relation to the last objective a process of data reduction was carried out in which various sub-sets of variables selected from the total number included in the study were tested in the discriminant equation. The aim here was to identify the smallest group which could adequately 'explain' smoking experience. Variables were selected on the basis, first that they could be considered to antecede smoking rather than stem from it, secondly, that they had high correlations with smoking experience (treated as a three point variable) and thirdly that they had consistently high standardised discriminant coefficents.

The final analysis was carried out separately on the boys in each of the four school years within each of the three school types on the four variables (25, 28, 2, 5,). Table A7.1, shows the unstandardised weights (B) which were obtained in each analysis, together with the means of the variables for smokers, triers and non-smokers and the standard deviations of the variables (in the sample of smokers and non-smokers combined). To test the significance of the discrimination we applied the 'F' test to Hotelling's multivariate extension of Students 'T' test (Porebski 1966a) comparing our obtained value of F for each of the 12 analyses with the value in Fisher and Yates' (1943) tables for the P = 001 level of significance, F was obtained from the following formulae.

Hotelling's
$$T^a = \frac{N_1 \ N_2}{N_1 + N_2}$$
 ($\frac{\Sigma}{i}$ Bi di)

Bi

$$F(p, \ N_1 + N_2 - p - 1) = \frac{T^2 \ (N_1 + N_2 - p - 1)}{p(N_1 + N_2 - 2)}$$

Number of boys in smokers group Where N.

> Number of boys in non-smokers group N. Difference in means between smokers

đi. and non-smokers for variable xi Coefficient in discriminant equation for

variable xi

Number of variables

To determine whether our intermediate group of triers were more like smokers or non-smokers, we calculated the mem sore of triers on the discriminant function and then compared the triers' mean score of non-smokers, and the mean score of smokers. In accordance with the principles put ferward by Knohl and Stuart [1966] which ever side of the put ferward by Knohl and Stuart [1966] which ever side of the result of the state of the st

Finally to determine the extent to which the four variables could be considered to explain the difference between smokers and non-smokers, we calculated the value of the multiple correlation coefficient (R) from the following formula (Porebski 1966a).

$$R = \frac{T^{2}}{p (T^{2} + N_{1} + N_{2} - 2)}$$

R2 gives the proportion of variation between smokers and nonsmokers which can be explained by variation in the four discriminator variables. Thus the size of R in each analysis indicates how well the four variables acting together can 'explain' smoking experience, or, looking at it another way the extent to which one can predict a boy's smoking experience from knowledge of his scores on the four variables. In order to demonstrate the predictive power of the four variables we dichotomised each variable at its median for the total sample and examined the proportion of boys who were smokers, triers and non-smokers, in each of the 16 groups defined by all combinations of the dichotomised variables (Table A7.2.). This is a very crude way of representing the results of the discriminant analysis because in the dichotomising process high scores (e.g., the score obtained by boys all of whose friends smoke on variable 25) are lumped together with lower scores so that each variable comes to represent simply the presence or absence of a characteristic. In view of this it is all the more surprising that the probabilities of smoking occurring in the different groups (Table A7.2), as shown by the proportions of boys who were smokers, triers and nonsmokers, varied so markedly. Thus the chances of boys with none of the four characteristics (group 1) being smokers are zero and the chances of their being non-smokers are about 9 to 1 (87%). On the other hand, the chances of boys with all the characteristics (group 16) being smokers are 7 to 3 (70%) and the chances of their being non-smokers are 1 to 9 (7%). Taking the weakness of our method into account (See Morgan and Sonquist, 1963 for a more powerful technique of identifying criterion groups in a general sample), all the indications are that the discriminant analysis has identified the major influences on a boy's smoking attempts. By adding more variables we can probably increase the strength of the discrimination marginally and thus explain more variation in the smoking experience criterion. But in accordance with

Table A7.1 Descriptions analysis - Group sizes, mean values of variables, contraduction is coefficients and atmostred errors

Anticipation of adulthood		0			-	0		-		640		-	-	0 40
of side		Smoke				4-95				5.0				ŝ
teatho	MEANS	Tries	÷	5	3.40	ž	9-62	3.74	5	3.10	9.6	9.00		9-09
Antici	-	Non- 7		2.13		20				2.13				2-67
	8.8	ne.	01.0	3.00	1.15	1.83			ž	1.1	6.12	9	1.80	0.06 1.18
D see		osef.	0-34	6.0	0.70	9.78	9.0	0.19	636	6.30	0.33	0-90	0.78	90.0
Parents Permissiveness (2)		Trice Sucker	8.01	2-71	3.46	3.50	1.60	1.30	2.36	2-63	1.6		2-35	273
ta Per	MEANS	reter	1.05	1724	2	2	145	1.16	3.5	1.65	9.0	1.53	1-93	2.61
Parent	×	Nen-	1-45	1-63	146	1.73	1:40	7.	1.24	1.50	7.42	ž	142	
No.	10	7.8	100	14.0	8.0	0.0	63	61.4	9.47	0.10	0.43	3.0	0.41	4.50
does not		conf	3-33	7.7	9.1	1.32	3-60	2.02	20.4	3.0	1.98	Ξ	2.12	04.1
Danger of Jung Cancer put off (88)		YearSmoker	1-9-1	95-1	23.1	1.64	1.67	10.	1.78	1.78	27.1	1.20	1.67	1.00
pril pril	MEANS	Type	2	1:3	1.30	3	1.90	1.37	2	7	1.38	1.5	1.30	****
Darger	×	Non- frroher	1.16	1.10	1.24	1.23	1.19	1.15	1.19	1.1	2.5	1-17	1.18	
ŝ	9	88	1.17	1.38		3.8	0.03	0.69	1.16	1.24	1.14	Ē	5	4.80
Sign		n Te	1.61	1.63	1.64	1.48	3.11	200	1.34	2.19	1.84	1.18	64.4	•
Number of Irlanda smoking (25)		Trier Smoker	4.00	3-90	3-83	5-9	3-67	ž	3.13	93.00	9:0	3.85	3.63	
12	MEANS	Tries	200	34	2	2	2-21	2.35	2	2.60	2.57	2.62	27.4	1
Nimber	×	Ntn- moker	17.1	1.01	2-02	3.47	1.03	1	1.63	3.00	1.10	1.60	2.01	
8.9		Tyter Smaker	77	88	8	142	-	8	90	134	34	22	100	
GROUP SIZE (unweighted)		Tyles	8	147	101	140	6.0	133	9	964	10	336	2	
GRO		Non-	148	246	1.03	134	393	333	210	165	287	813	934	
	CHOOL		-				-						-	
	TYPE OF B			RECOMMANY	MODERN				CHANDLAN			COMPRE		

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2 1-62 2 1-63 2 1-63

The B confined is the weight to be whitely in computing the discriminal fundam. The B coefficient used in interpreting the results of the example (Chapter 5, Tagle 5, 4) is obtained by multipling B by the examinate arrow (5,2,) of the variable to which it applies.

the principles of scientific paraimony it seems preferable to develop a model in which all the numerous influences on the growing boy are considered to affect his smoking experience, through the mediation of the smallest number of major variables. The four variables we have identified are the once which best satisfy this criterion.

Table A7.2 The proportions of boys who were non-smokers, triers and smokers in each of the 16 groups defined by the discriminant analyses,

Grou	p size	Non-smokers	Trier	Smokers
16	1, 219	7%	23%	70%
15	644	24%	39%	37%
14	611	11%	50%	39%
13	395	20%	60%	20%
12	222	29%	41%	30%
11	199	54%	39%	7%
10	194	32%	52%	16%
9	250	54%	36%	10%
8	230	35%	43%	22%
9 8 7 6	415	67%	26%	75
6	170	53%	40%	75
5	445	78%	22%	2%
4	103	51%	43%	800
3 2	256	78%	19%	6% 3%
2	131	65%	33%	2%
1	622	87%	13%	0%

APPENDIX 8

Additional tables mentioned in the text

Table A8.1 Social influences analysed by school year

	Social Influence	1st Year	2nd Year	3rd Year	4th Year
	2 or more older siblings (Rem 30)	30%	29%	30%	28%
	One or more older siblings who smokes (Item 23)	30%	36%	40%	39%
HOMR	Both parents smoke (Lem 27)	82%	81%	79%	81%
HOME	Cigarettes often left around house (Item 26)	29%	34%	37%	465
	Parents would not punish boy for smoking (Rem 24)	24%	30%	37%	56%
	Parents permissiveness towards smoking + (Scale 2)	36%	44%	47%	60%
	Believes Family is working class (Item 35)	31%	30%	36%	46%
	Father's social class 3, 4 or 5 (manual) (Rem 31)	64%	64%	68%	66%
FRIENDS	Extent of Social Pressure to Smoke + (Scale 8)	31%	46%	53%	59%
11001120	Half or more friends smoke (Rem 25),	22%	30%	48%	58%
EDUCA -	Vocabulary Score is in bottom 50% for age group (Item 93)	39%	49%	61%	59%
CAREER	Academic ability below average or dull. (Item 78)	29%	25%	44%	40%
	Not in top 10 of Form (Rem 36)	63%	60%	59%	58%
	Weighted bases	1577 (100%)	1516 (100%)	1550 (100%)	1461 (100%)

Table A8.2 Social influences analysed by type of school attended

	Social Influence	Sec. Mod.	Gram.	Comp.	Total
	2 or more older siblings ([tem 30)	33%	18%	29%	29%
	One or more older siblings who smokes, (Rem 23)	41%	25%	37%	36%
	Both parents smoke. (Item 27)	83%	75%	82%	81%
	Parents would not punish boy for smoking (Item 24)	35%	40%	35%	36%
HOME	Cigarettes often left around house (Item 26)	36%	36%	37%	36%
	Purcuis permissii cuess lowards smoking (Scale 2)	47%	43%	49%	47%
	Believes family is working class (Item 23)	39%	27%	33%	36%
	Father's social class 3, 4 or 5 (Manual) (Rem 31)	73%	47%	66%	67%
	Extent of Social pressure to smoke ((Scale 8)	52%	33%	47%	47%
FRIENDS	Half or more friends smoke (Item 25)	42%	31%	40%	39%
EDUCA-	Vocabulary score in bottom 50% for age group (Item 93)	63%	20%	55%	52%
TIONAL CAREER	Academic ability below average or dull, (Rem 78)	46%	0%	42%	35 %
	Not in top 10 of form (Item 36)	60%	61%	59%	60%
	Weighted bases	3924 (100%)	1483 (100%)	697 (100%)	6104 (100%)

Table A8,3 Personal characteristics analysed by school year

Per	sonal Characteristics	1st Year	2nd Year	3rd Year	4th Year
	Going out with girls is one of three most preferred activities. (Item 81)	18%	29%	39%	50%
	Goes out usually with a girl friend or group of boys and girls (Rem 77)	16%	19%	26%	32%
LEISURE INTERESTS	Has been to Cinema during the last two weeks. (Item 34)	49%	49%	52%	56%
	Would like to buy clothes if had the money. (Rem 82)	48%	59%	73%	83%
	Plays for Form or School Sports team. (Stem 79)	38%	44%	49%	47%
	Has a paid job outside School hours (Item 39)	24%	30%	44%	48%
FINANCES	Has six shillings or more a week pocket money. (Item 37)	26%	42%	62%	73%
	Does not save money regularly each week. (Rem 38)	15%	15%	14%	21%
	Anticipation of adulthood + (Scale 5)	36%	44%	62%	72%
	Desire for adulthood + (Scale 3)	40%	39%	49%	47%
	Rebelliousness +(Scale 10)	43%	55%	64%	74%
PERSON-	Delinquency + (Scale 11)	45%	51%	58%	61%
ALITY	Feeling of Inferiority+ (Scale 7)	43%	42%	44%	39%
	Frustration + (Scale 9)	51%	51%	53%	54%
	Tension + (Scale 13)	64%	63%	62%	56%
	Belief in passishment - (Scale 12)	50%	58%	64%	68%
	Weighted Bases	1577 (100%)	1516 (100%)	1550 (100%)	1461 (100%

Table A8.4 Personal Characteristics analysed by type of school attended

	Personal Characteristics	Sec. Mod.	Gram.	Comp.	Total
	Going out with girls one of three most preferred activities (Rem 81)	35%	29%	35%	34%
	Goes out usually with a girlfriend or group of boys and girls (Rem 77)	24%	19%	25%	23%
LEISURE INTERESTS	Has been to the Cinema during the last two weeks (Rem 34)	55%	44%	51%	52%
	Would like to buy clothes if had the money. (Item 82)	66%	63%	63%	65%
	Plays for Form or School Sports team (Rem 79)	41%	51%	4.8%	44%
	Has a paid job outside School hours (Item 39)	40%	21%	34%	36%
FINANCES	Has six shillings or more a week pocket money. (Rem 37)	51%	47%	53%	50%
	Does not save money regularly each week. (Item 38)	19%	9%	11%	16%
	Anticipation of adulthood + (Scale 5)	56%	45%	54%	53%
	Desire for adulthood + (Scale 3)	48%	34%	42%	44%
	Rebelliousucss + (Scale 10)	59%	5.9%	58%	59%
PERSONALITY	Delingueucy - (Scale 11)	57%	44%	56%	54%
	Feelings of Inferiority + (Scale 7)	44%	37%	41%	42%
	Frustration + (Scale 9)	53%	50%	50%	52%
	Tension + (Scale 13)	64%	55%	60%	61%
	Belief in Proxistment ~ (Scale 12)	62%	54%	63%	40%
	Weighted Bases	1577 (100%)	1516 (100%)	1550 (100%)	1461

Table A8.5 Beliefs about smoking and attitudes towards smoking

analysed by school year.							
	Beliefs and Attitudes	1st Year	2nd Year	3rd Year	4th Year		
BELIEFS ABOUT	Belief in the independ- ence of smokers + (Scale 4)	53%	54%	52%	51%		
SMOKERS	Belief in the Sexual Altracliveness of Smokers + (Scale 6)	44%	44%	42%	40%		
	Beltef that Smoking relieves tension + (Scale 14)	37%	45%	47%	57%		
	Belief that smoking is not dangerous to children + (Scale 16)	54%	51%	50%	51%		
BELIEFS ABOUT SMOKERS	Belief that anti-smoking campaign is mef/ective + (Scale 19)	43%	40%	45%	40%		
	Believes could get lung cancer from smoking (Item 80)	72%	59%	47%	41%		
	Extent to which smoking can affect general health + (Scale 18)	64%	61%	66%	61%		
	Worry about adult smok- mg + (Scale 1)	56%	51%	48%	36%		
ATTITUDES	Opposition to dissuaders + (Scale 15)	32%	36%	39%	50%		
TO SMOKING	Disapproval of smoking + (Scale 17)	55%	47%	42%	27%		
	Not put off smoking by the danger of lung cancer. (Item 28)	22%	26%	35%	43%		
	Weighted Base	1577 (100%)	1516 (100%)	1550 (100%)	1461 (100%)		

Table A 8.6 Beliefs about smoking and attitudes towards smoking analysed by type of school attended.

	Beliefs and Attitudes	Sec.M.	Gram.	Comp.	Total
BELIEFS ABOUT SMOKERS	Belief in the Independence of Smokers + (Scale 4) Belief in the Sexual Altractiveness of Smokers + (Scale 6)	58%	35%	57% 43%	52% 42%
	Beitef that Smoking relieves tension + (Scale 14)	45%	47%	49%	46%
	Belief that smoking is not dangerous to children - (Scale 16)	56%	39%	52%	51%
BELIEFS ABOUT SMOKING	Belief that anti-smoking campaign is ineffective + (Scale 19)	44%	37%	41%	425
	Believes could get lung cancer from smoking (Rem 80)	50%	58%	58%	52%
	Extent to which smoking can affect general health - (Scale 18)	64%	60%	64%	63%
	Worry about adult smok- ing + (Scale 1)	49%	44%	46%	48%
ATTITUDES	Opposition to dissembers + (Scale 15)	42%	32%	38%	39%
TO SMOKING	Disapproval of smoking + (Scale 17)	44%	41%	40%	43%
	Not put off smoking by the danger of lung cancer (Item 28)	31%	32%	33%	31%
	Weighted Bases	3924 (100%)	1483 (100%)	697 (100%)	6104 (100%)

Table A8.7 Leisure activities boys like most analysed by school year.

Leisure Activities	1st Year	2nd Year	3rd Year	4th Year
Sports and games	59%	53%	50%	49%
Cycling with a group of boys	29%	28%	27%	22%
Going to the pictures	32%	30%	31%	33%
Going dancing	3%	3%	7%	10%
Reading, writing or drawing	34%	31%	24%	18%
Woodwork or making models and other things	37%	33%	31%	23%
Watching T.V. or listening to the radio	51%	49%	43%	39%
Gardening or care of pets	20%	17%	11%	7%
Going to coffee bars	2%	4%	5%	6%
Going to youth clubs	8%	13%	16%	25%
Going out with girls	17%	28%	38%	48%
Chatting to a group of friends	9%	9%	12%	16%
Weighted Buses	1577 (100%)	1516 (100%)	1550 (100%)	1461 (100%)

Table A8.8 Leisure activities boys like most analysed by

Leisure Activities	Sec. Mod.	Gram.	Comp
Sports and games	52%	55%	52%
Cycling with a group of boys	26%	24%	25%
Going to the pictures	33%	26%	33%
Going dancing	6%	6%	85
Reading, writing and drawing	25%	36%	25%
Woodwork or making models or other things	31%	31%	30%
Watching T.V. or listening to the radio	44%	49%	45%
Gardening or care of pets	17%	12%	15%
Going to coffee bars	4%	3%	5%
Going to youth clubs	15%	14%	16%
Going out with girls	35%	29%	35%
Chatting to a group of friends	10%	15%	10%
Weighted Bases	3924 (100%)	1516 (100%)	1461

Table A8.9 Items boys would like to buy analysed by school year

Item	1st Year	2nd Year	3rd Year	4th Year		
Records	30%	39%	45%	49%		
Record player or tape recorder or radio	36%	41%	44%	49%		
Musical instrument	26%	26%	28%	29%		
Clothes	48%	60%	73%	82%		
Sports equipment	58%	57%	55%	49%		
Books	56%	31%	42%	38%		
Cigarettes	4%	10%	16%	25%		
Sweets or ice cream	52%	50%	52%	40%		
Bicycle or bicycle spare parts	60%	64%	65%	53%		
Holiday or travel	73%	80%	77%	82%		
Weighted Bases	1577	1516	1550	1461		

Table A8,10 Items boys would like to buy analysed by

type of school attended.			
Item	Sec. Mod.	Gram.	Comp
Records	37%	49%	45%
Record player or tape recorder or radio	38%	51%	44%
Musical Instrument	27%	28%	27%
Clothes	66%	64%	68%
Sports Equipment	55%	55%	57%
Books	40%	65%	45%
Cigarettes	15%	10%	14%
Sweets or ice cream	51%	42%	49%
Bicycle or bicycle spare parts	61%	59%	39%
Holiday or travel	77%	82%	76%
Weighted Bases	3924 (100%)	1516 (100%)	1461 (100%)



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